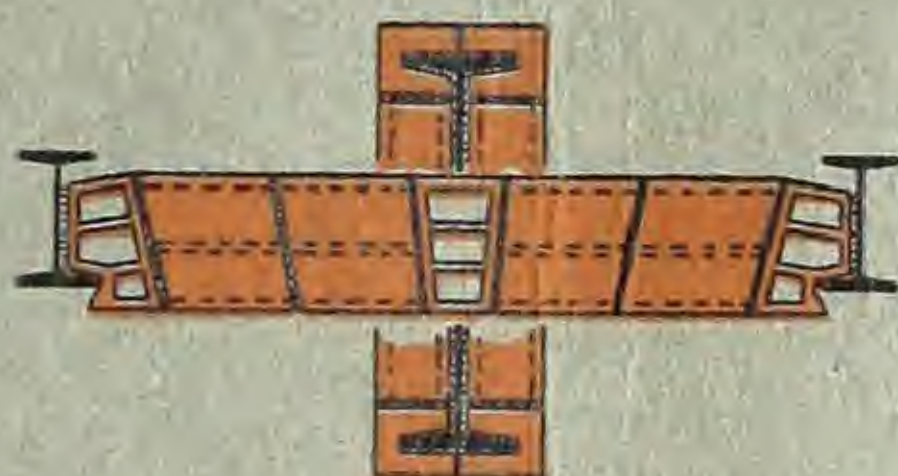
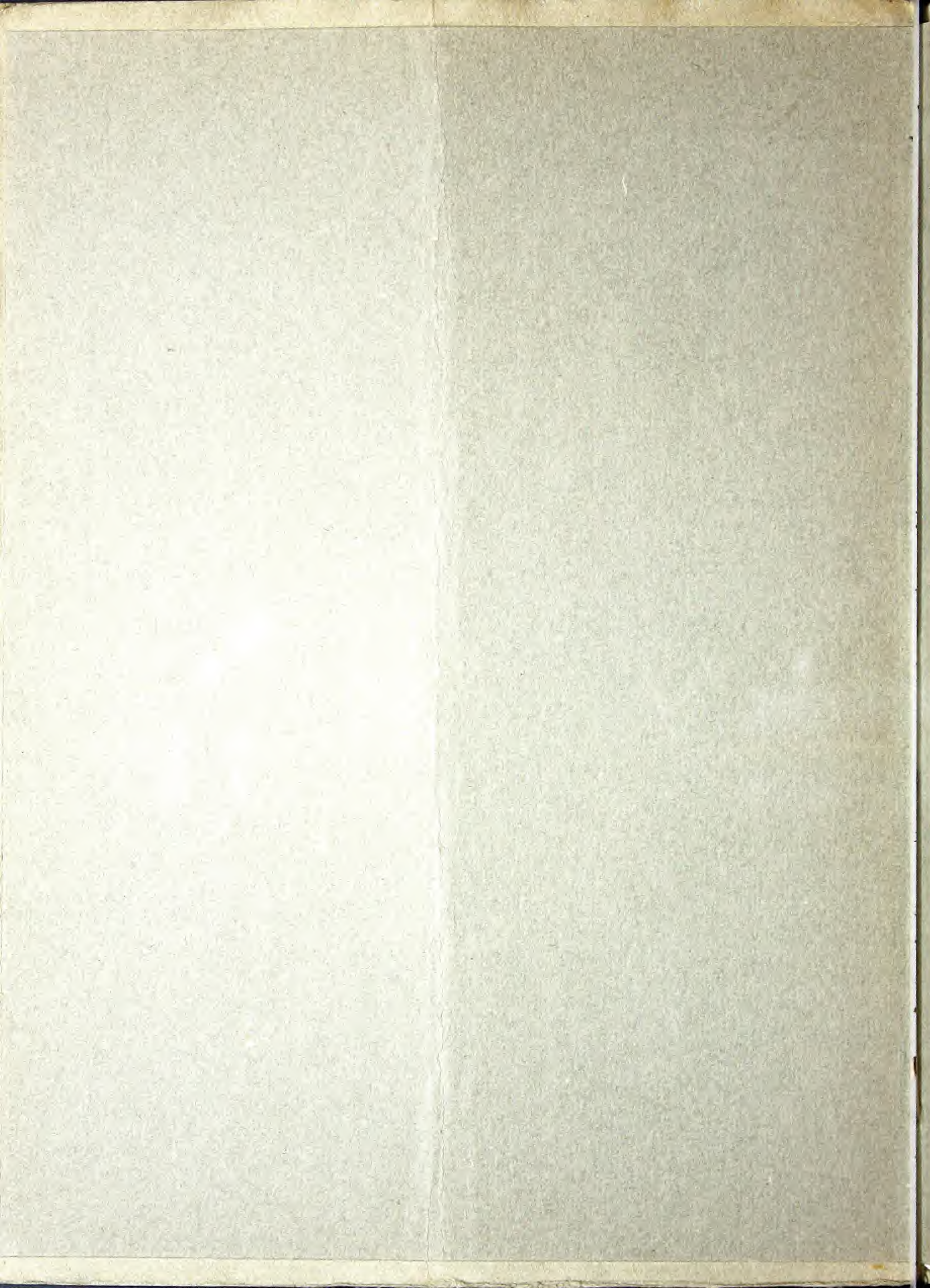


DOMINION  
FIRE PROOFING  
COMPANY *Limited*



FIRE PROOF CONSTRUCTION  
IN  
TERRA COTTA  
HOLLOW TILE







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DOMINION  
FIRE PROOFING COMPANY  
LIMITED

CONTRACTORS

for the manufacture and  
installation of

HOLLOW TERRA COTTA  
TILE FIRE PROOFING FOR  
ALL CLASSES OF BUILDINGS



*Sales  
Department*

Office: Winnipeg, Man.

Hollow Tile Building Blocks  
for Exterior Walls, Interior Walls  
Furring, Floor Systems, etc.

N/R



# INTRODUCTORY

*Investigate the possibilities of  
Hollow Tile when making  
preliminary building  
designs*

The Dominion Fire Proofing Company, Limited, with its Factory located in Canada, and being promoted by local Capital and

Interests is essentially a Canadian Venture.

In presenting this Catalog, it is our aim to place in the hands of all interested parties, Architects and Engineers particularly, information and data concerning the most modern and practical Fire Proofing methods.

It is impossible to comprise all features of this Type of Construction, though we endeavor to convey a comprehensive idea of Hollow Terra Cotta Tile and its uses as a Fire Protection, not only for the tall Steel Framed Office Building, but the smaller Warehouse, Apartment and Residence Buildings as well. In this connection our Engineers will gladly submit recommendations and designs where special treatment is necessary.

As the advantages of Hollow Tile Construction are many, it is advisable to thoroughly investigate its possibilities when making preliminary building designs, and we would appreciate any opportunity to furnish estimates, also structural data, as a working basis.



# **Building Construction Best Adapted to Physical Conditions in Canada**

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## **RAPIDITY OF CONSTRUCTION**

Terra Cotta Hollow Tile recommends itself particularly on account of the rapidity with which it can be installed. False work for temporary support of Hollow Tile Arches remains in place only twenty-four hours, and after removal, other trades can follow immediately with their work, thus making a great saving in the time of total completion of the building. Furthermore, the floor is perfectly dry and no delays are caused by dripping of water or other unavoidable delays where Concrete is used.

## **WORKING SEASON SHORT**

The above facts are of special value where actual working season is so short. Besides, Hollow Tile can be installed with absolute safety under extreme weather conditions, when concrete construction is impossible. Hollow Tile Fire Proofing can be carried on into the winter months, thereby enabling entire Building to be enclosed and consequently allowing Interior Finishing to be completed with resultant saving to the Contractor and Owners, through structure not laying idle until Spring.

## **LIGHTER DEAD LOADS**

Tile Arches, as they weigh not to exceed 40 pounds per cubic foot, are the lightest Fireproof Construction, considering actual load carrying Value.

## **INSULATING VALUE**

As the Tile Blocks comprise at least two or more air cells, they are practically proof against transmission of sound or temperature, even when extreme. When used for Roof Construction, a suspended ceiling is unnecessary.

## **ADAPTABILITY TO ALTERATIONS**

In case of unforeseen changes arising after Fire Proofing has been installed, any number of square feet of Arches can be removed without seriously impairing the strength, in contrast to great expense incurred in removing Concrete Slabs.

## **FIRE PROOFING QUALITIES**

Being a Burned Clay Product, which has been subjected to extreme heat in the Kilns, Hollow Tile is logically a better Fire Protection than a material made from mixing of materials, each of which disintegrates when exposed to fire.

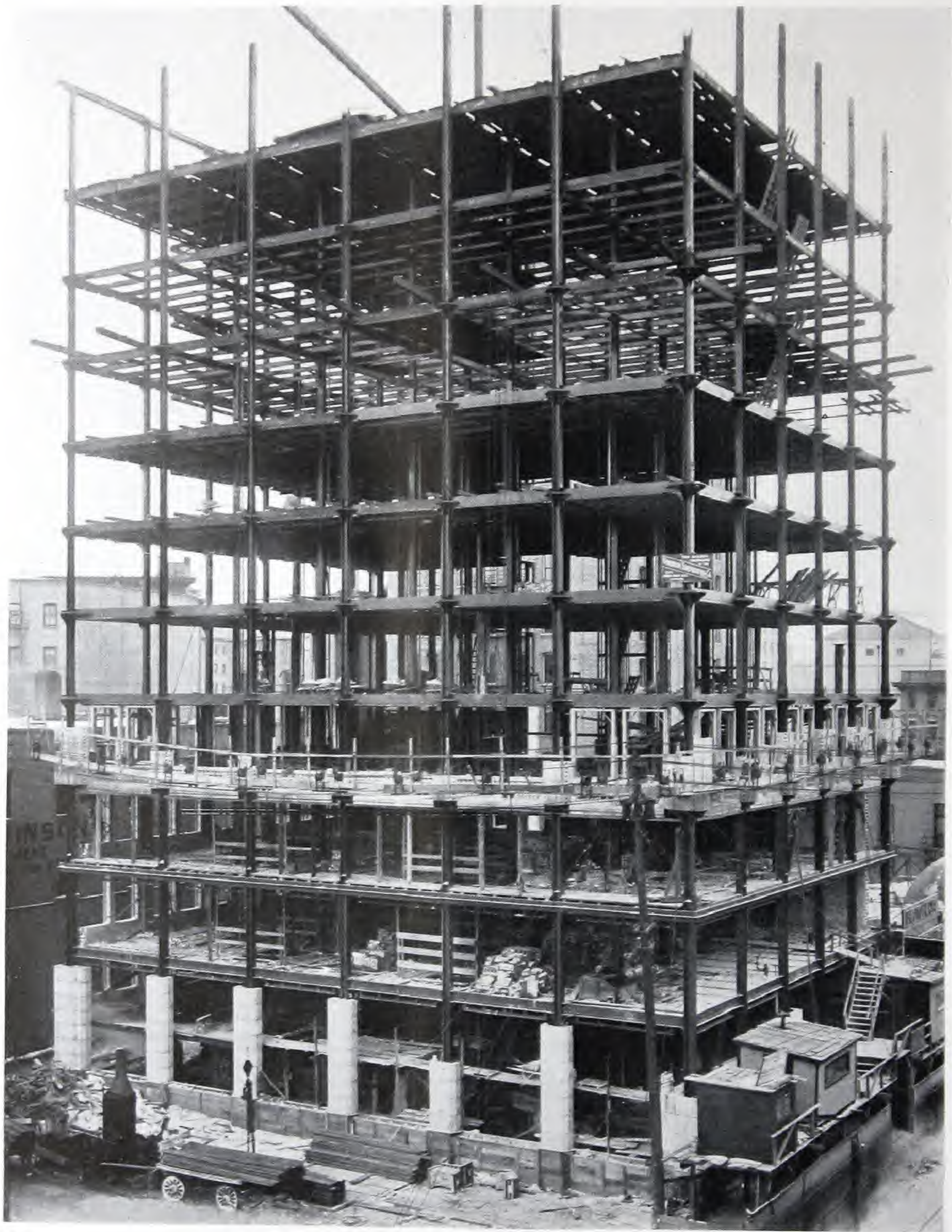
TC 1D95-B1864



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DOMINION FIRE PROOFING COMPANY, *Limited*

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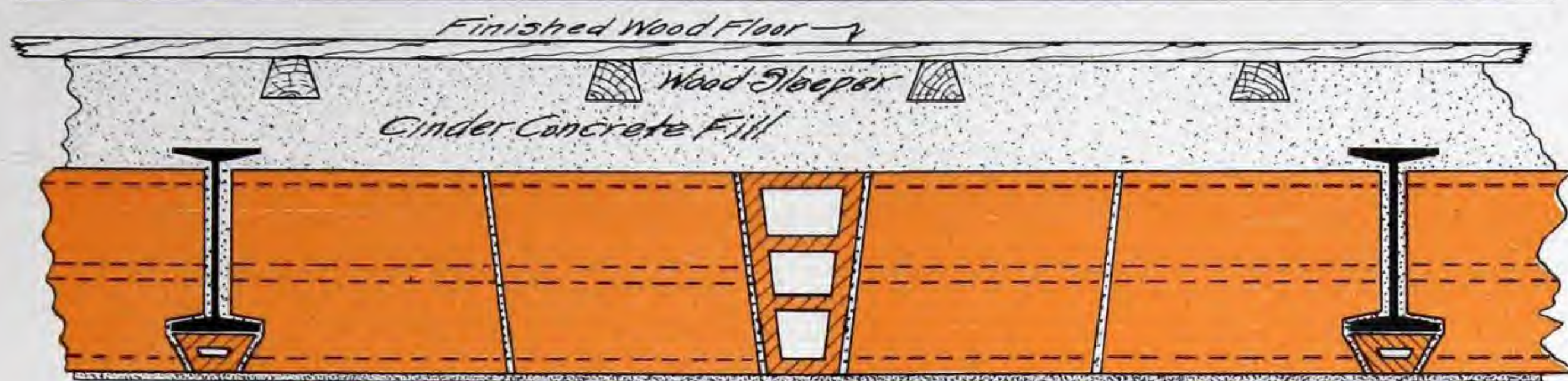
WINNIPEG ELECTRIC RAILWAY BUILDING

*Pratt & Ross, Winnipeg, Architects*

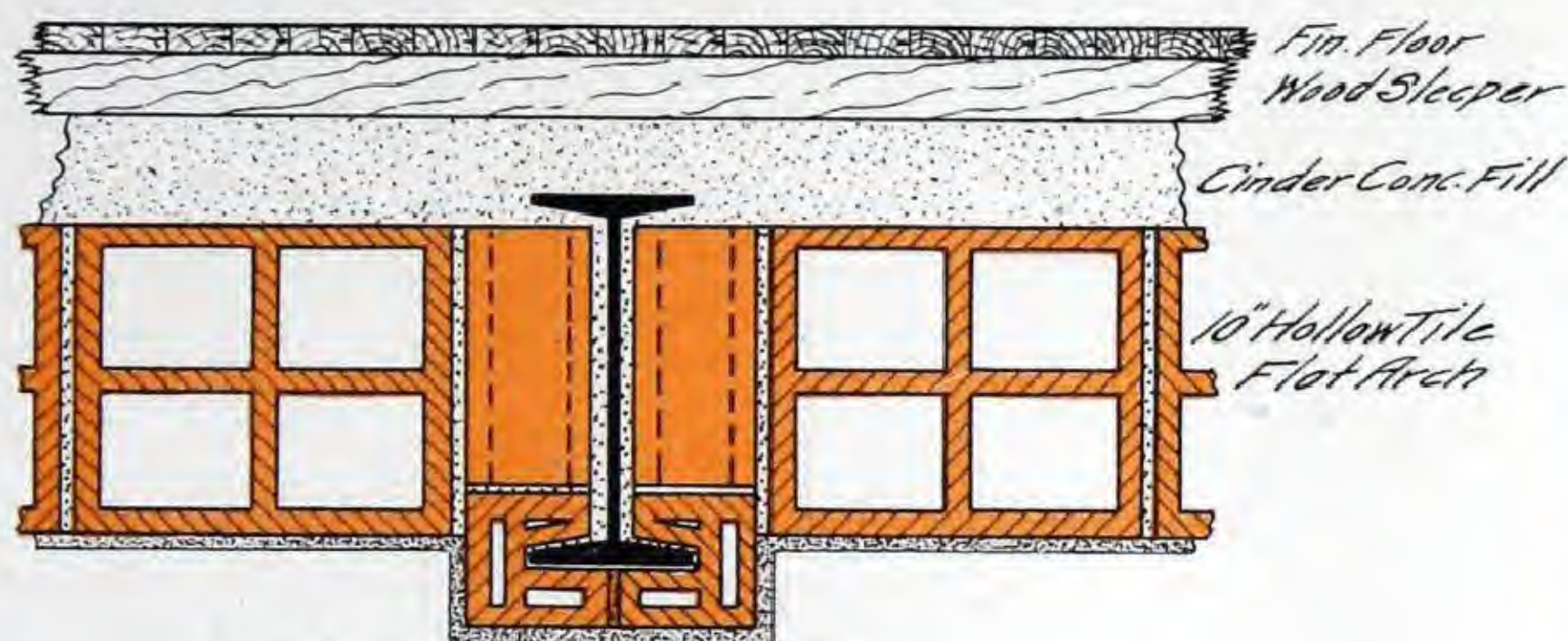
*Carter, Halls, Aldinger Co., Contractors*



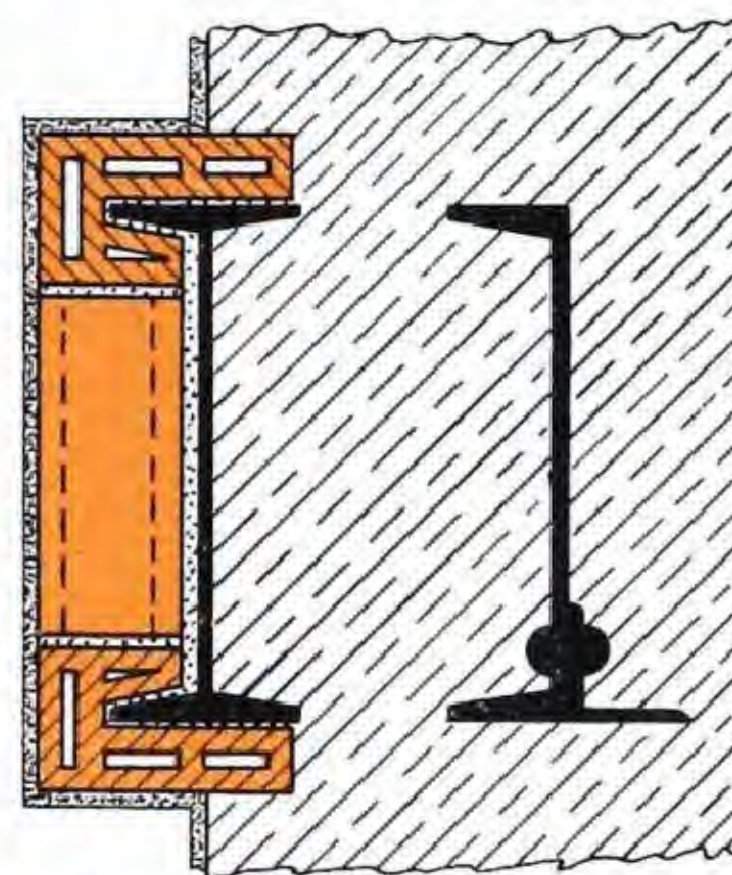
# DOMINION FIRE PROOFING COMPANY, Limited



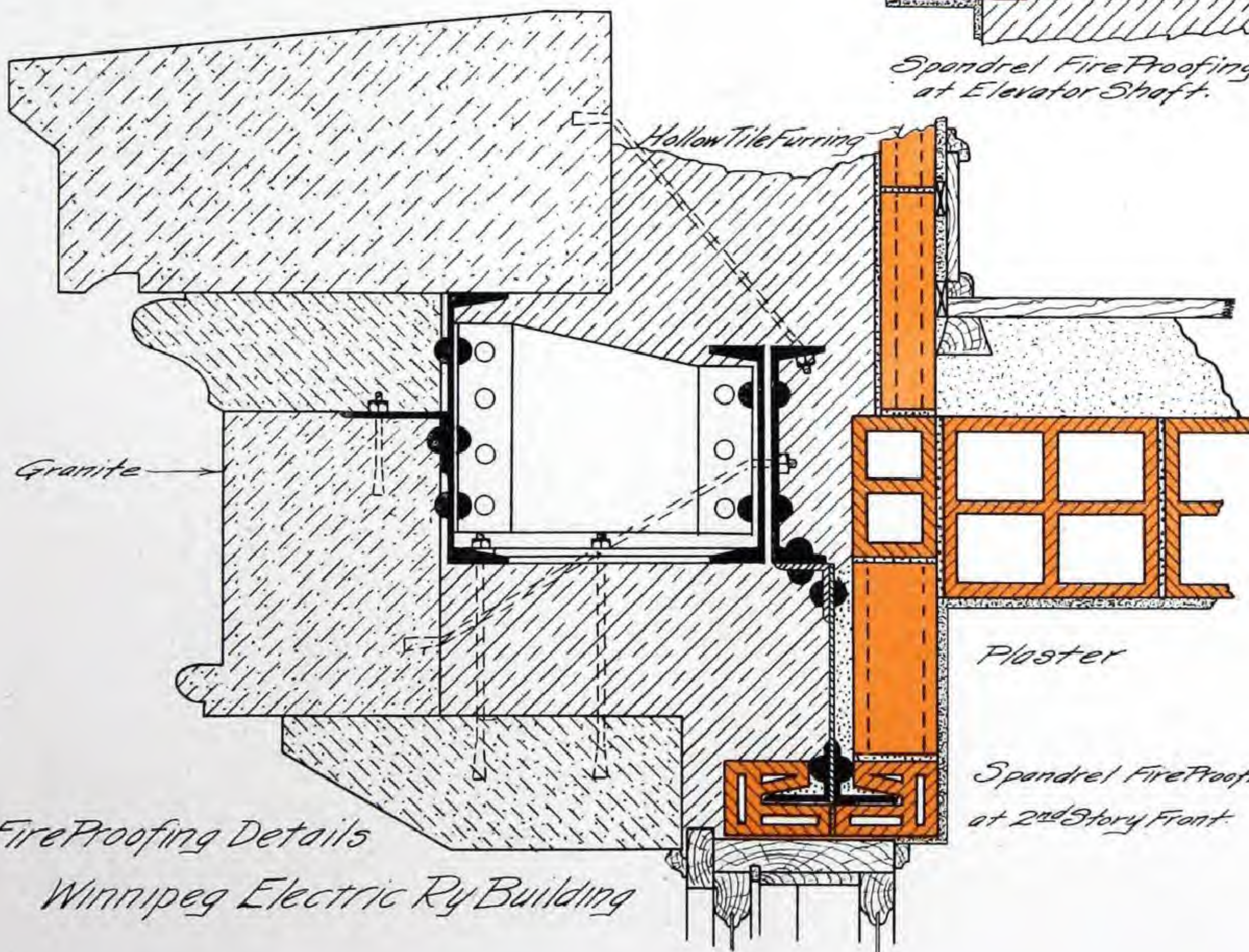
*Typical Span Flat Arch: Note End Construction Skewback*



*Typical Girder Fireproofing*



*Spandrel Fireproofing at Elevator Shaft.*

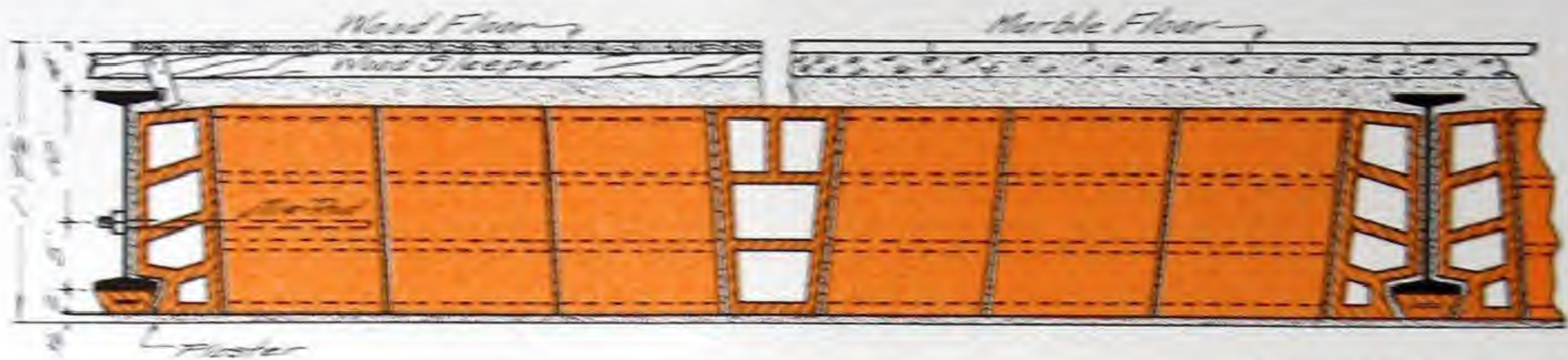


*Fireproofing Details  
Winnipeg Electric Ry Building*



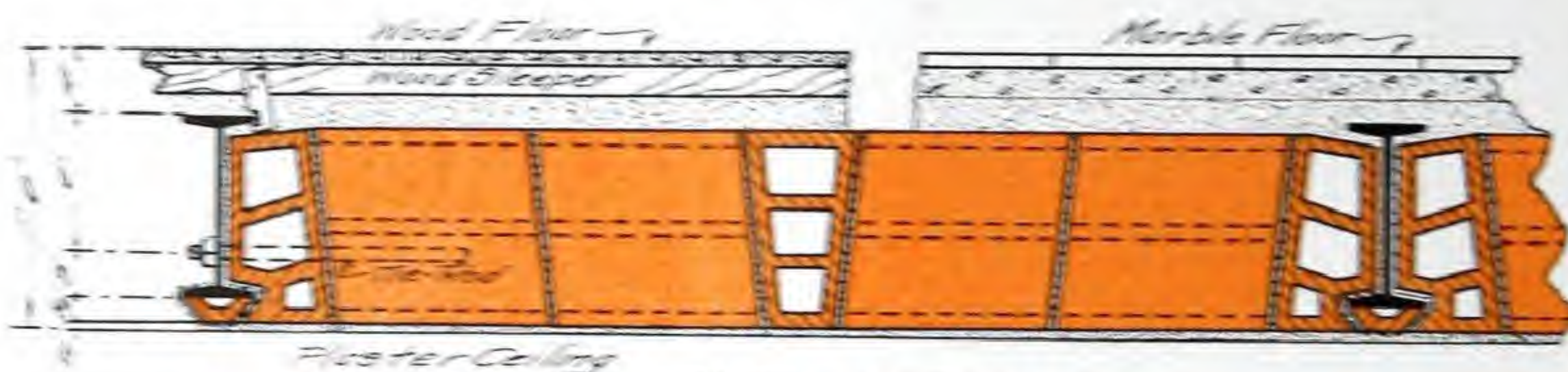
DOMINION FIRE PROOFING COMPANY, Limited

HOLLOW TILE ARCH CONSTRUCTION



15' x 16' Flat Arches

Section

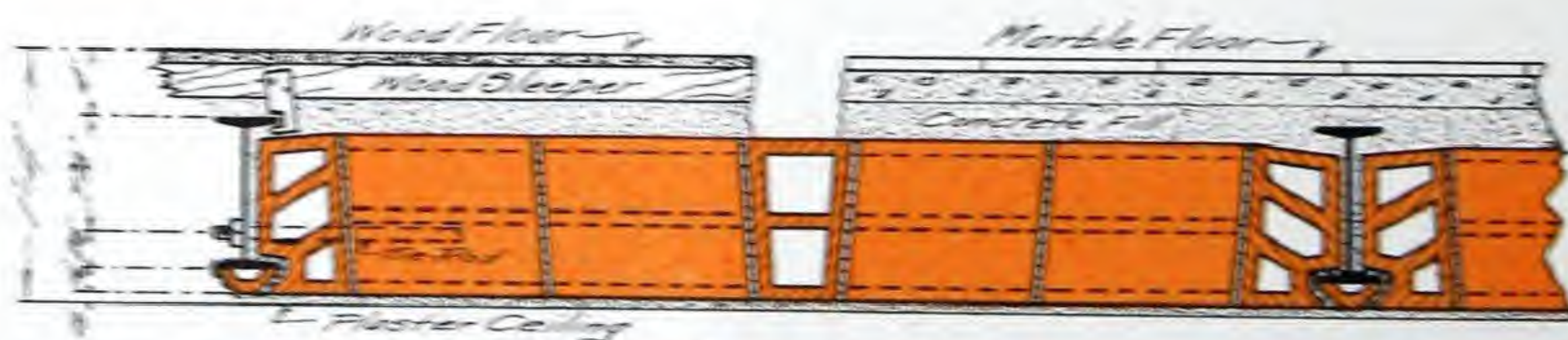


12' x 13' Flat Arches

Section



Special Skewback  
for  
Smaller Size Beams



9' x 10' Flat Arches

Section





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**DOMINION FIRE PROOFING COMPANY, *Limited***

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**TABLE OF SAFE LOADS FOR FLAT ARCHES**

SAFETY FACTOR—4

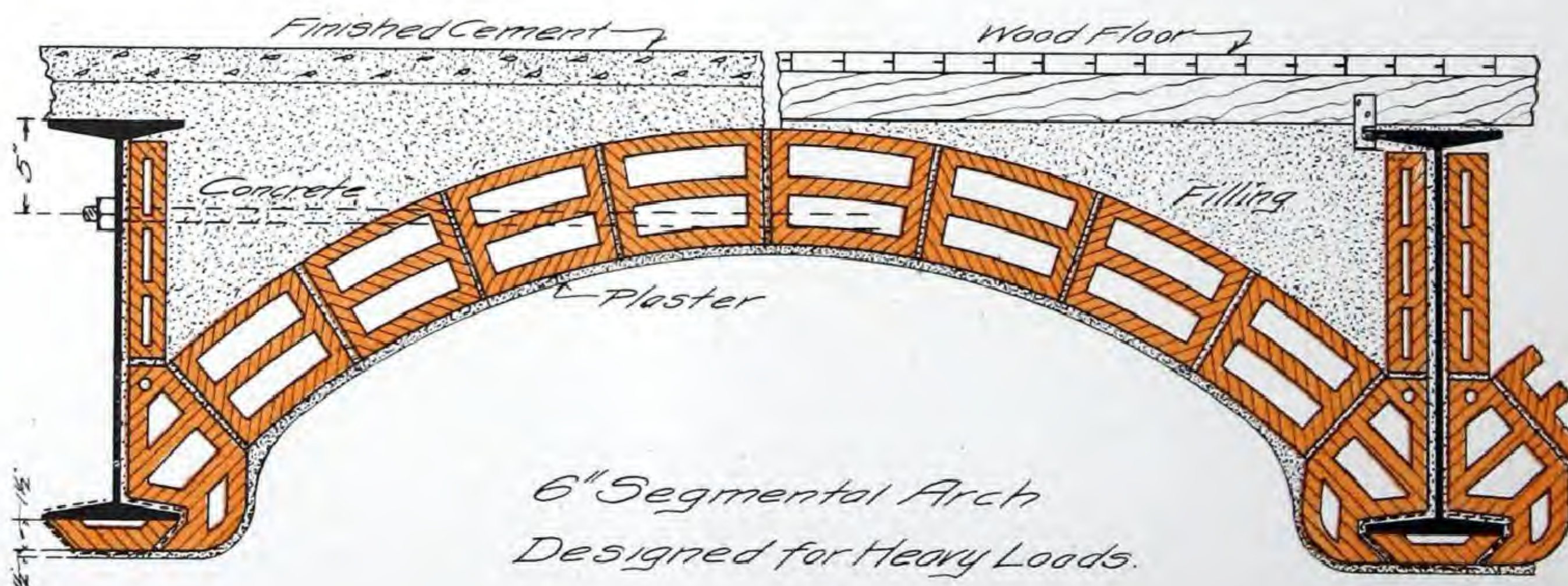
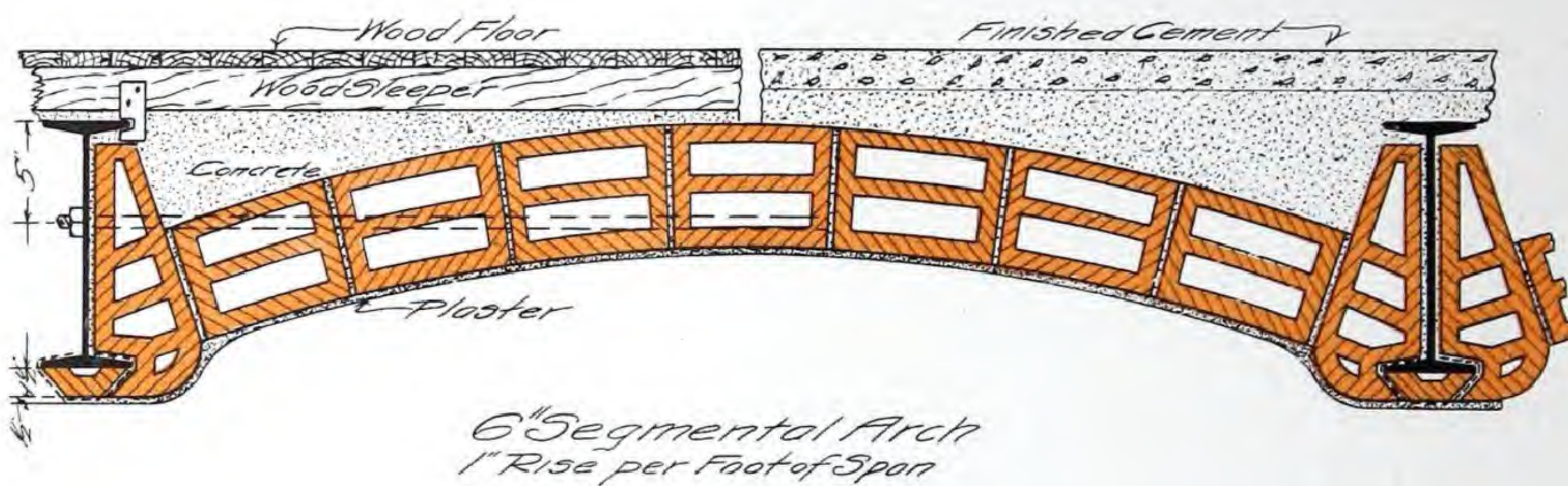
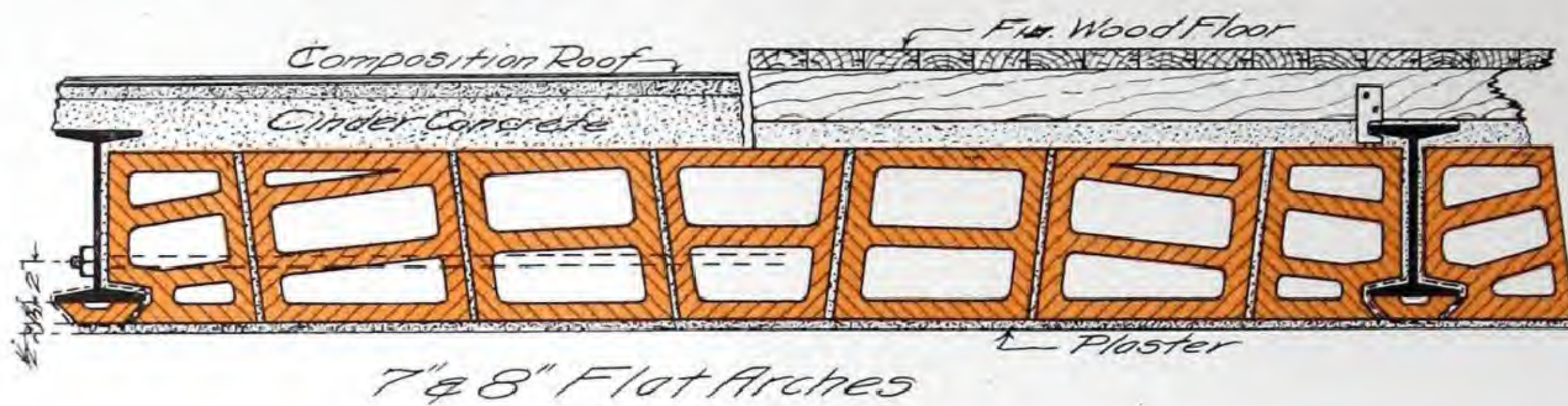
ARCHES	7 inch Arch	8 inch Arch	9 inch Arch	10 inch Arch	11 inch Arch	12 inch Arch	15 inch Arch
Width of Span	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds	Pounds
2' 6"	652	811	1080	1164	1396	1638	2406
3' 0"	592	742	913	1091	1282	1497	2218
3' 6"	428	536	658	793	910	1091	1619
4' 0"	321	405	498	592	726	824	1228
4' 6"	251	311	387	465	567	648	961
5' 0"	190	241	302	371	452	514	772
5' 6"	143	192	246	298	340	422	631
6' 0"	108	143	197	246	286	320	497
6' 6"	...	110	152	198	236	282	415
7' 0"	...	...	112	162	192	221	346
7' 6"	...	...	...	121	157	198	297
8' 0"	...	...	...	...	118	165	262
8' 6"	...	...	...	...	...	124	228
9' 0"	...	...	...	...	...	96	197
9' 6"	...	...	...	...	...	...	126

In reckoning the carrying strength of flat arches, take into consideration only the live load, weight of plaster and finish, as the weight of the hollow tile has been deducted.

**Specify Dominion Fire Proofing Company's Product for  
Quality of Material and Efficiency  
of Workmanship**



HOLLOW TILE ARCH CONSTRUCTION





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**DOMINION FIRE PROOFING COMPANY, *Limited***

---

**TABLE OF SAFE LOADS FOR SEGMENTAL ARCHES**

SAFETY FACTOR—4

Width of Span	6 inch Arch	8 inch Arch	10 inch Arch	Width of Span	6 inch Arch	8 inch Arch	10 inch Arch
4' 0"	1196	1450	1592	8' 8"	545	657	714
4' 4"	1132	1359	1486	9' 0"	521	624	680
4' 8"	1068	1267	1380	9' 4"	500	599	653
5' 0"	1006	1178	1273	9' 8"	579	574	626
5' 4"	938	1103	1197	10' 0"	457	549	598
5' 8"	867	1030	1121	10' 4"	436	532	578
6' 0"	797	952	1046	10' 8"	415	515	557
6' 4"	760	905	1001	11' 0"	398	497	539
6' 8"	721	858	956	11' 4"	380	475	520
7' 0"	683	809	910	11' 8"	362	453	502
7' 4"	652	777	867	12' 0"	346	432	481
7' 8"	620	745	824	12' 4"	330	415	461
8' 0"	591	713	782	12' 8"	312	397	439
8' 4"	568	680	748	13' 0"	296	382	423

The weights of hollow tile blocks are included in above safe loads.

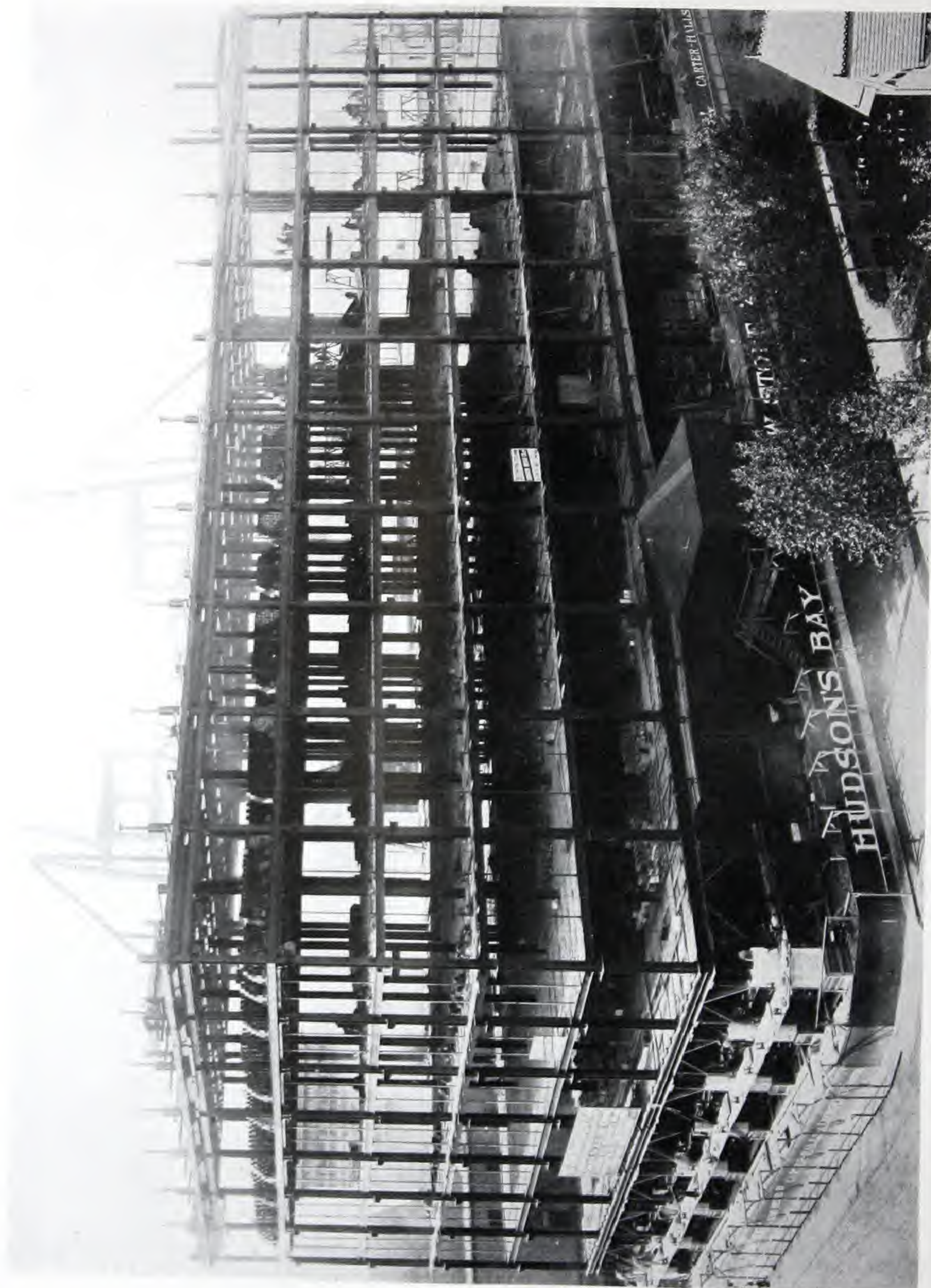
**Specify Dominion Fire Proofing Company's Product for  
Quality of Material and Efficiency  
of Workmanship**



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HUDSON'S BAY COMPANY BUILDING  
Calgary, Alta.

Burke, Horwood & White, Architects

Carter, Halls, Aldinger Co., Contractors

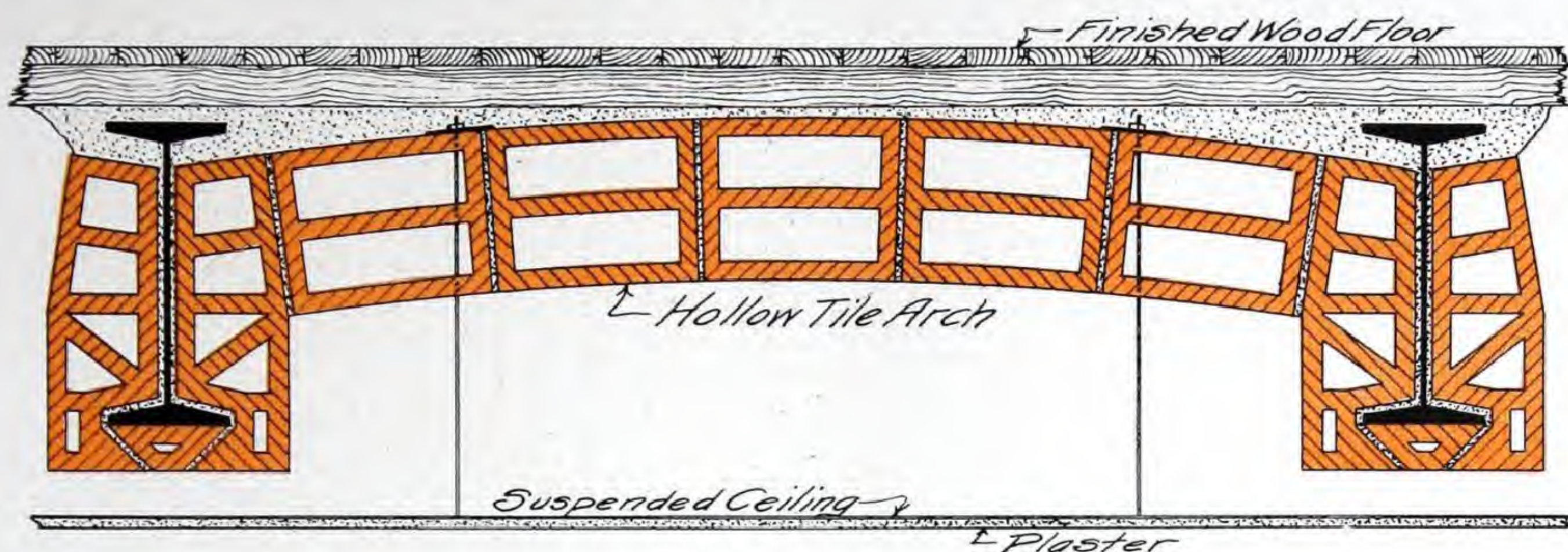


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DOMINION FIRE PROOFING COMPANY, *Limited*

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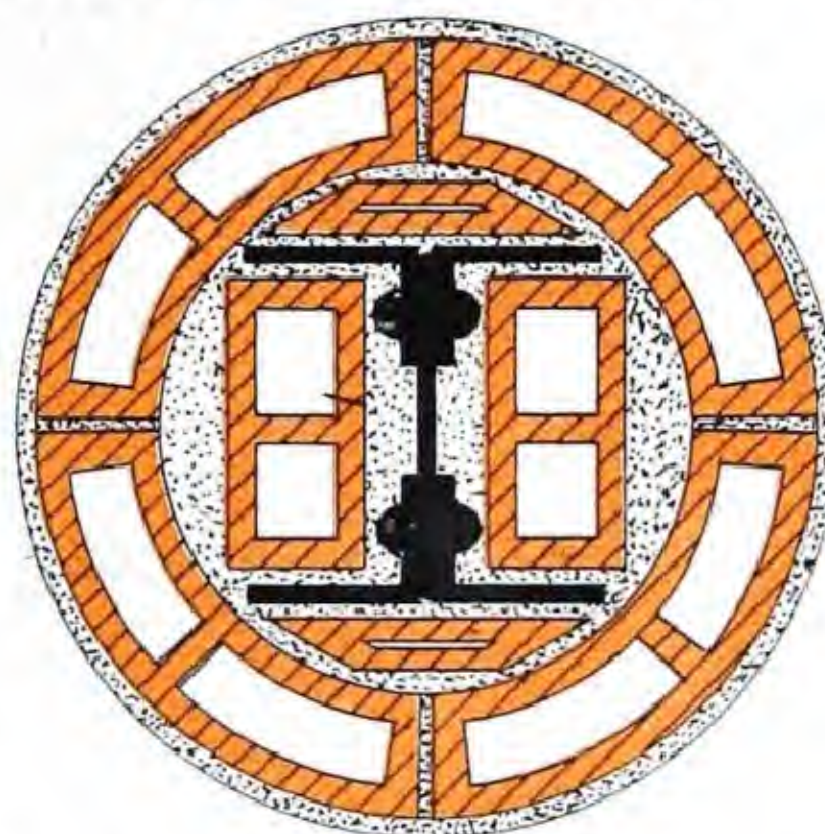
*FIRE PROOFING DETAILS*



*DETAIL OF FLOOR CONSTRUCTION*



*Typical Girder*

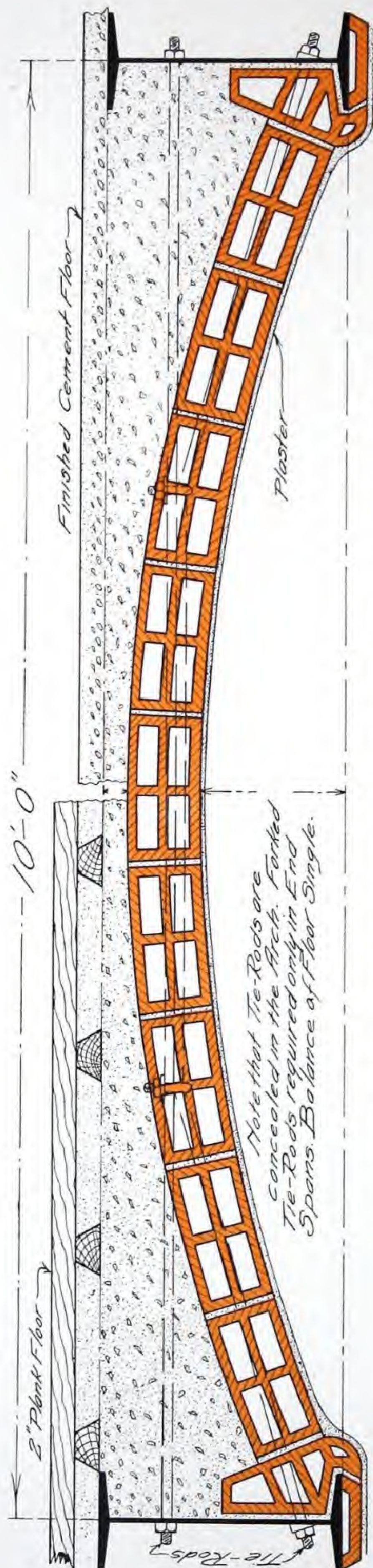


*Column Fire Proofing*

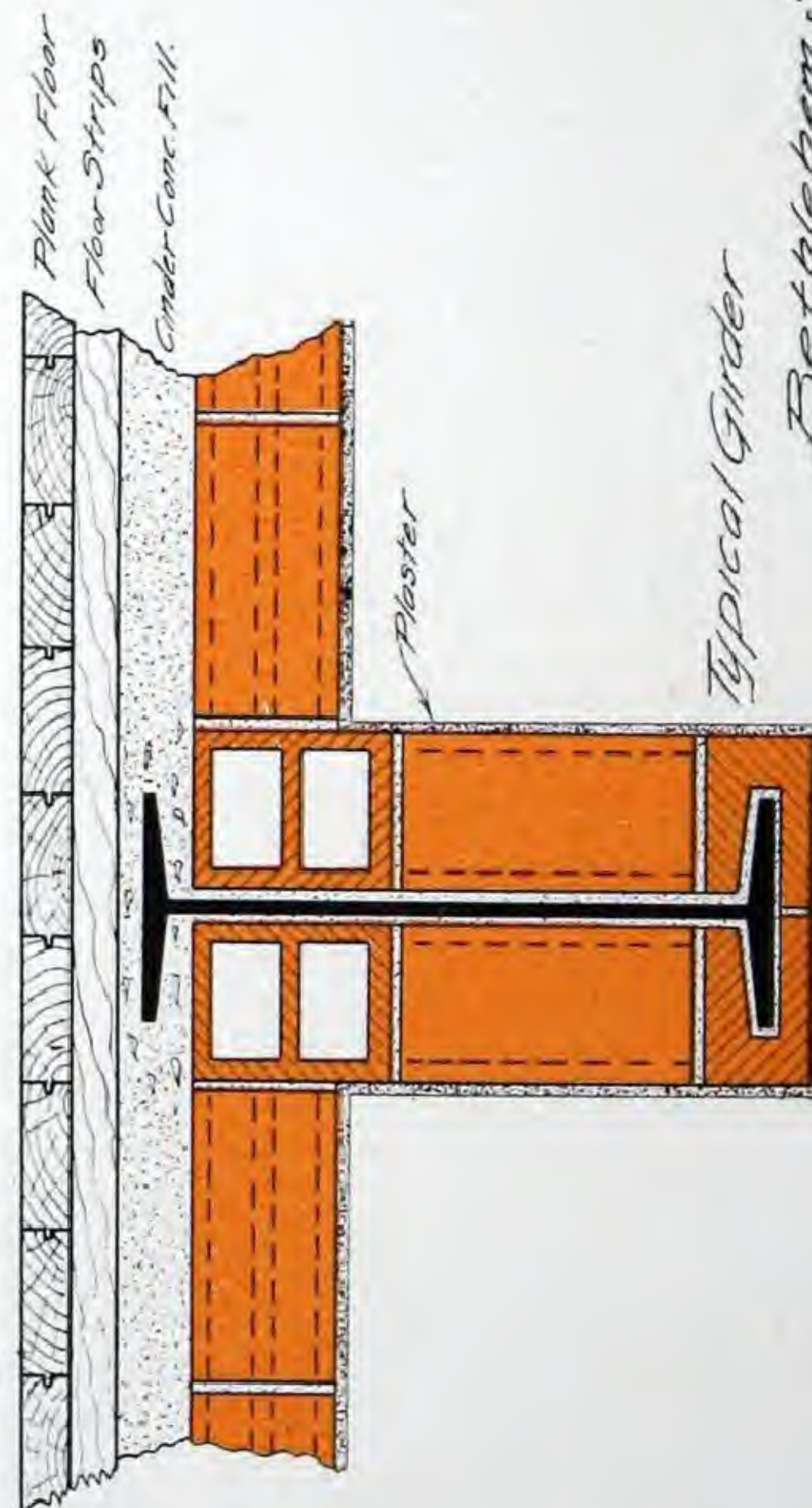
On page 10 we reproduce a photograph of the new Hudson's Bay Building, at Calgary, Alberta. This is the first Standard Steel Frame and Hollow Tile Fireproof Building to be erected in Calgary, and over 200 cars of our material were used in the Fire Proofing.

On this page are shown the Girder and Column Fire Proofing details, also a section through the Floor Arches. A flat ceiling throughout entire storey was desired and suspended ceilings were specified on all floors, so considerable saving in Dead Load and cost of installation was made by designing the Arches as detailed.

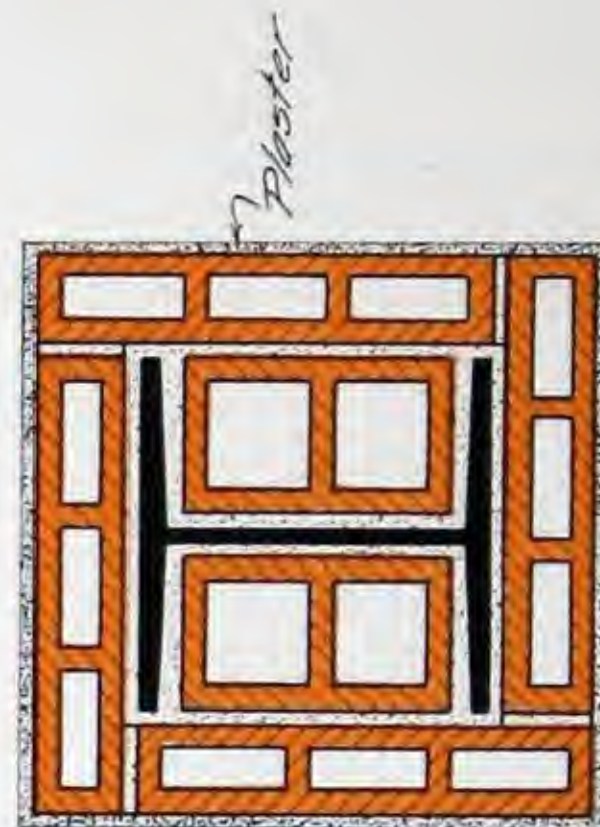




*Detail 6" Segmental Arch - An Economical design particularly adapted for Mercantile Buildings and Warehouses for carrying heavy loads, and where a Straight Ceiling is unnecessary.*



*Typical Girder  
Bethlehem Steel shown*





## Girder Fire Proofing

All the main Girders throughout should be Fire Proofed independent of the Floor Arches; for in the accidental case during fire of a heavy weight striking any of the Arches with sufficient force to crush through same, the covering of Girders would remain intact and protect these important members.

On the following pages are shown standard methods of Girder, Spandrel and Truss Fire Proofing.

While the protection of Steel Spandrels is generally the same thickness, the treatment varies in different Buildings to correspond with kind and thickness of walls, and exterior Lintels, whether Terra Cotta, Cut Stone, Granite, Ornamental Iron Facia, or Face Brick, also detail of Supporting Steel.

Built up Plate Girders or Trusses should be practically and thoroughly protected as they usually carry the total load of the Structure and Contents directly above and extend over a wide Span beneath. The most modern method of Fire Proofing these shapes is detailed on Page 15.

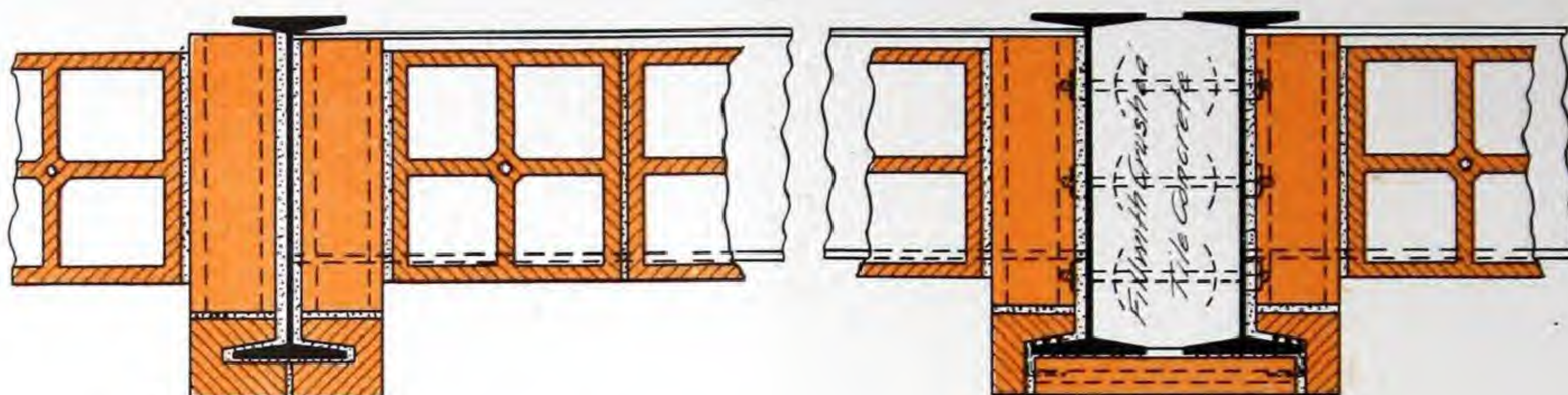
It is customary practice to conceal Steel Trusses from below with a suspended Ceiling, and as a solid Tile wall carried on each side of Bottom Chord and completely encasing the Truss, would bring considerable additional and unnecessary load to bear, it is advisable to Fire Proof the Individual Steel Members. This can be most economically and efficiently done with Hollow Tile as detailed.

Efficiently Fire-  
proof all  
Structural Steel

*See page 15  
for detailed  
shapes*



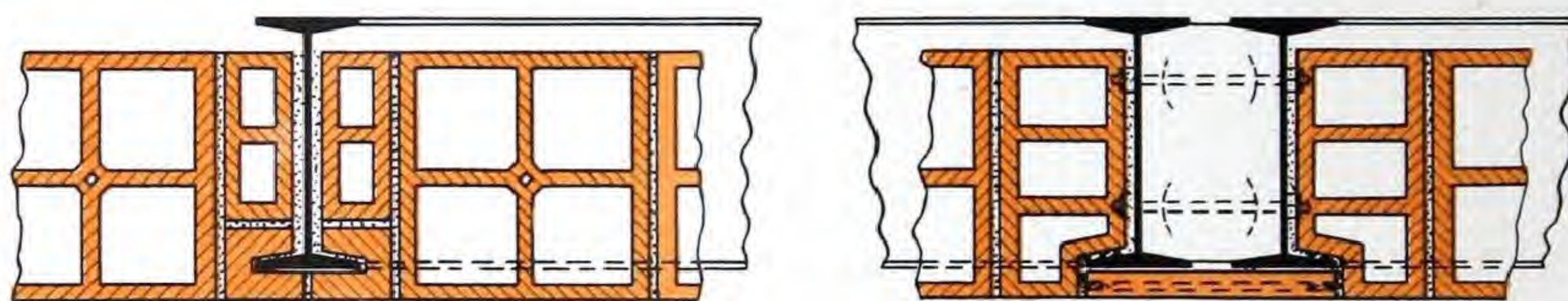
GIRDER COVERING



Single Girder

Double Girder

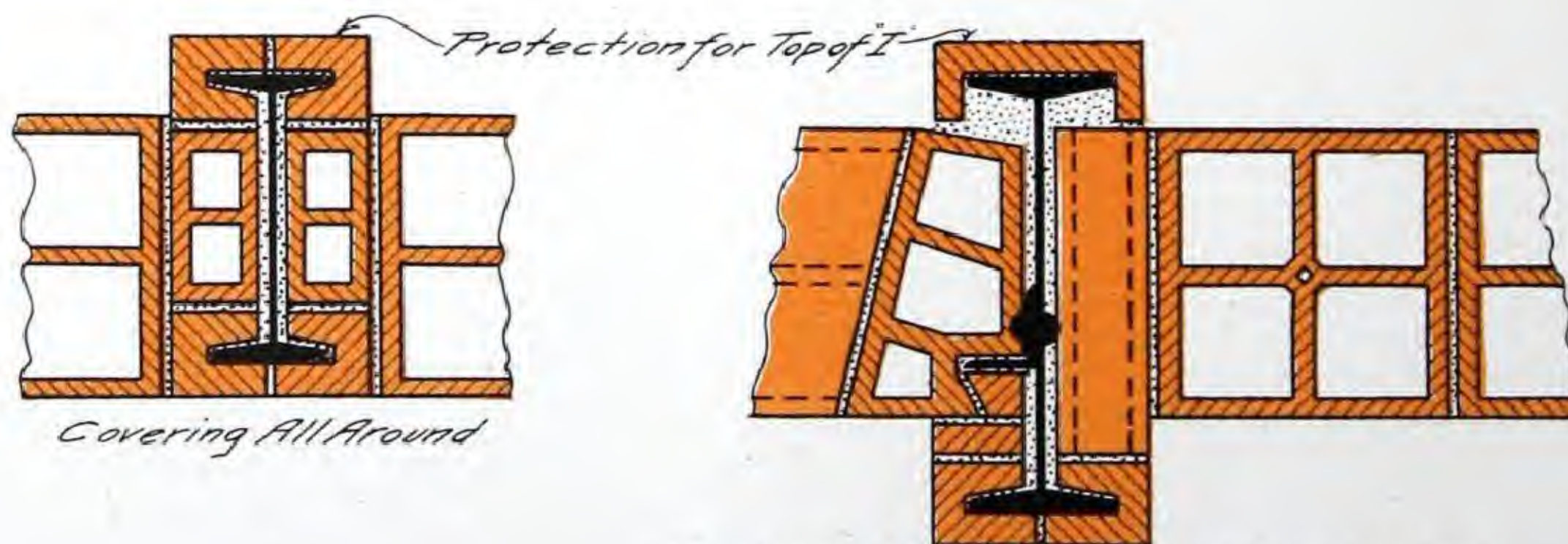
*Tops of Girders 1" above Floor Beams*



Single Girder

Double Girder

*Girders & Beams Flush on Bottom*



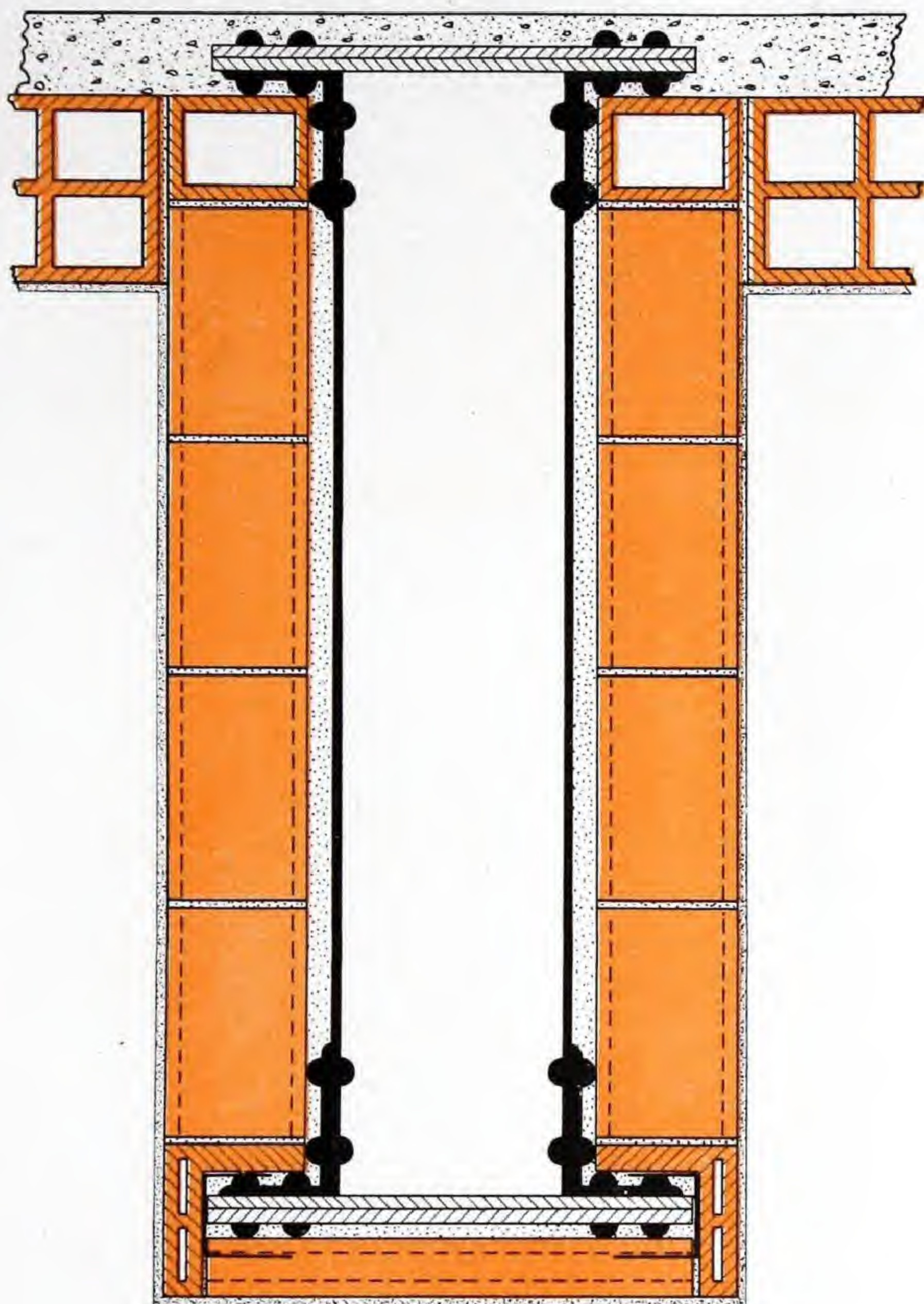
Covering All Around

*Girder with Arch Springing from one Side*

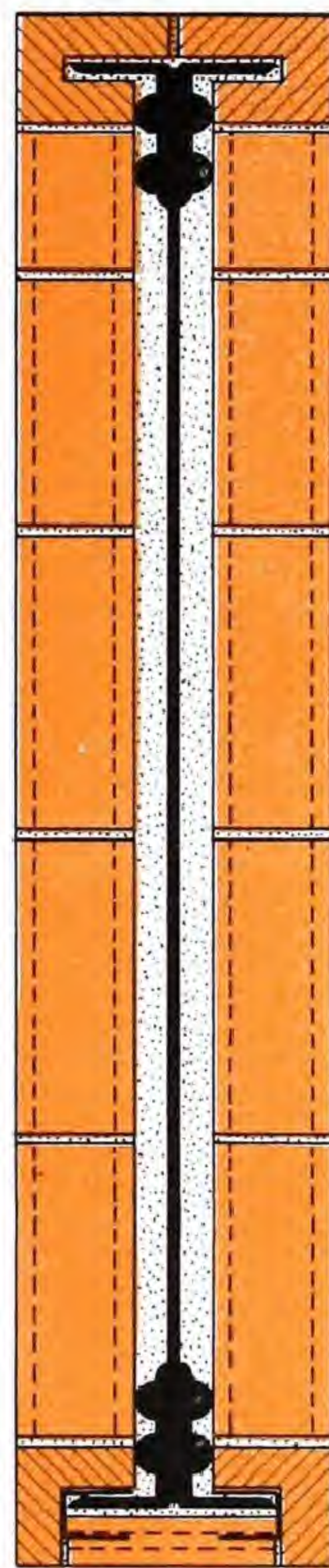


DOMINION FIRE PROOFING COMPANY, Limited

HEAVY TRUSS and GIRDER FIRE PROOFING



Double Plate Girder



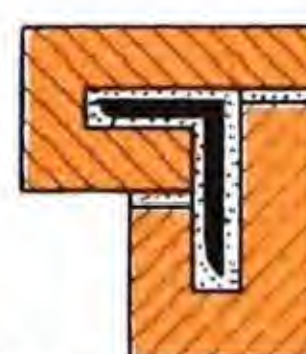
Single Plate Girder



Top Chord



Bottom Chord

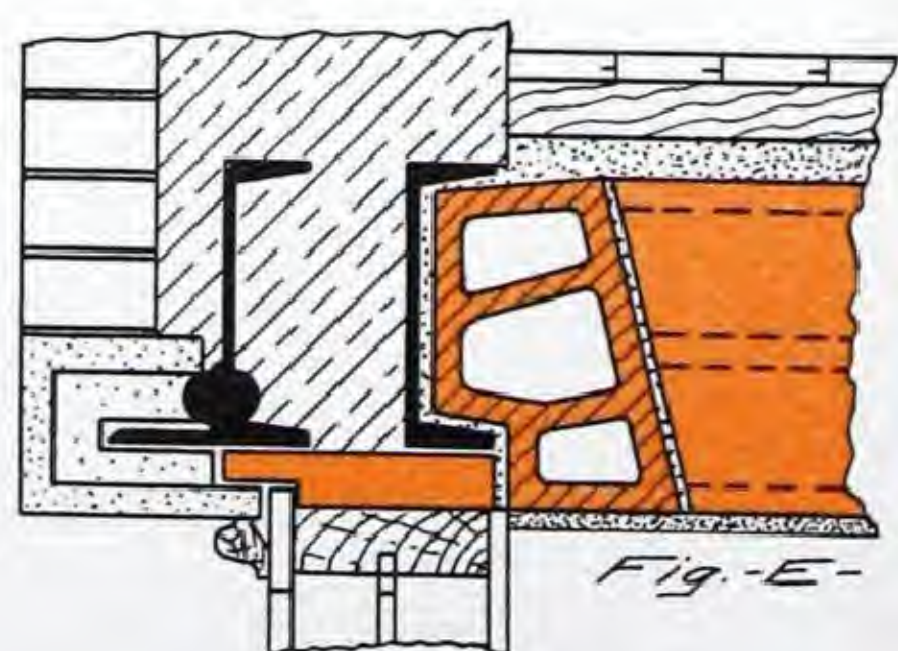
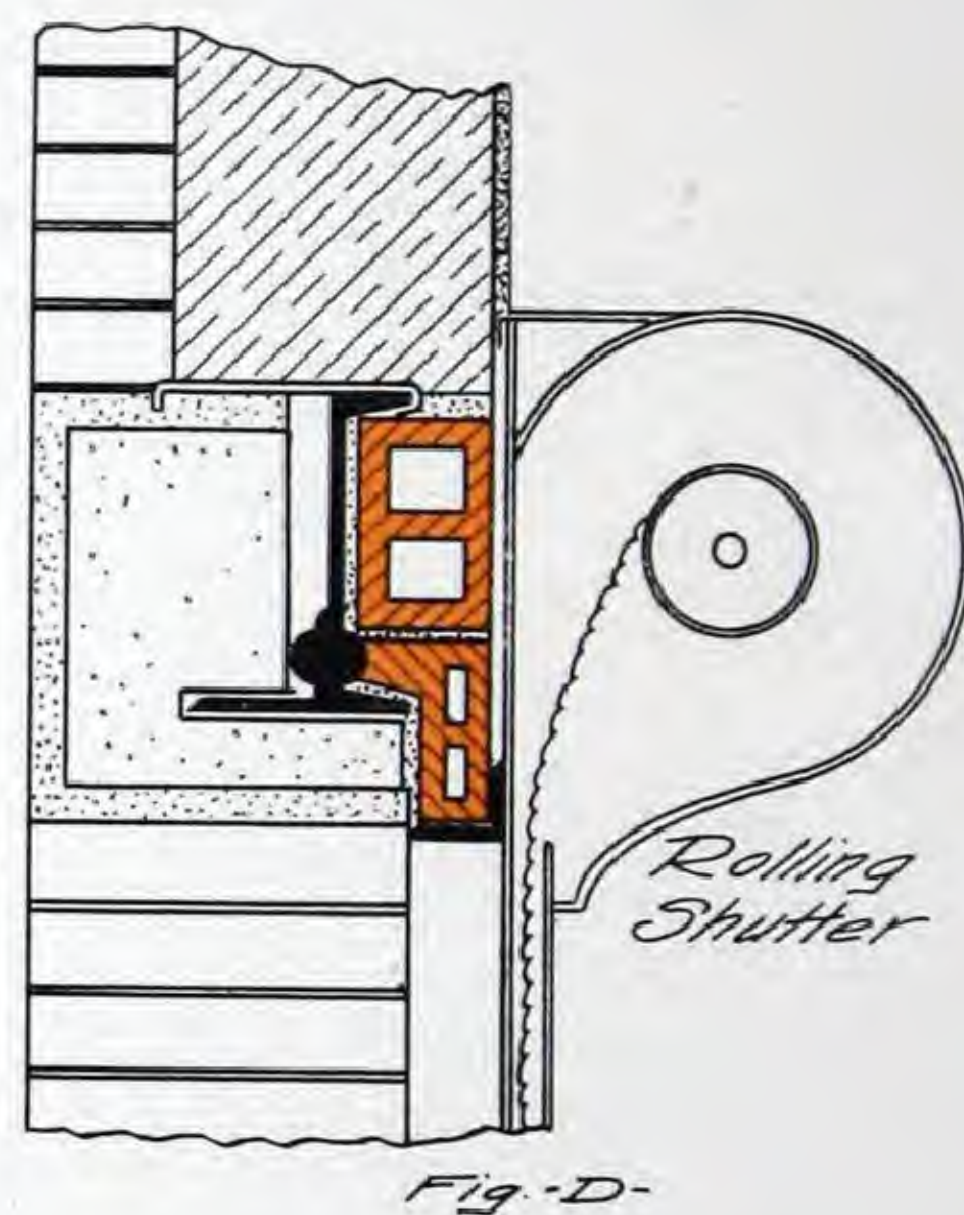
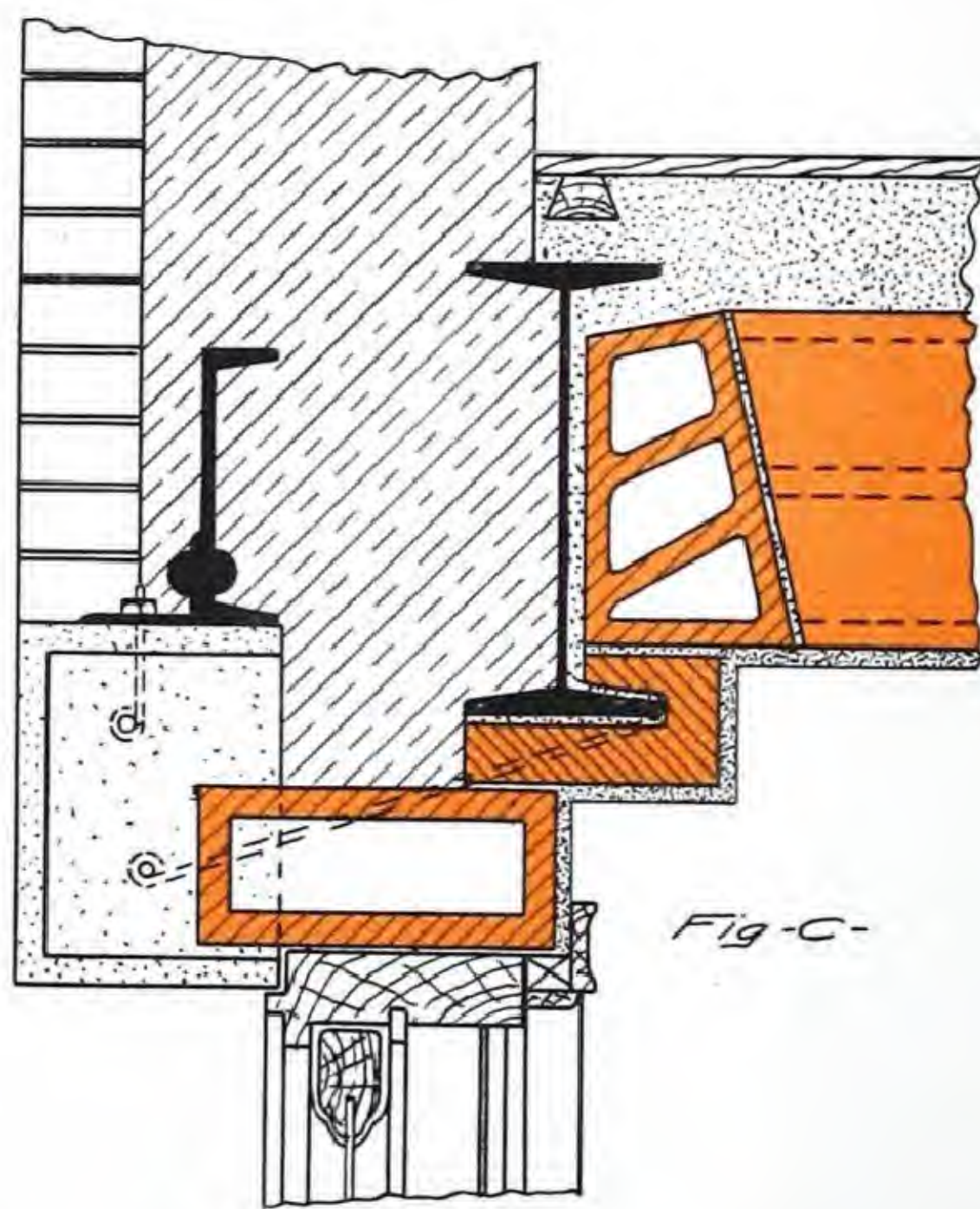
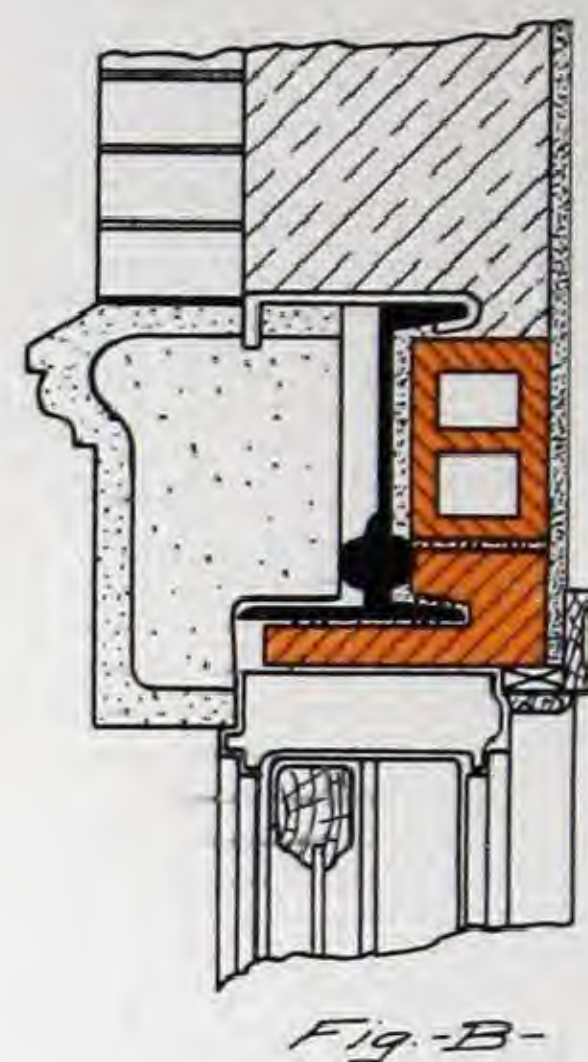
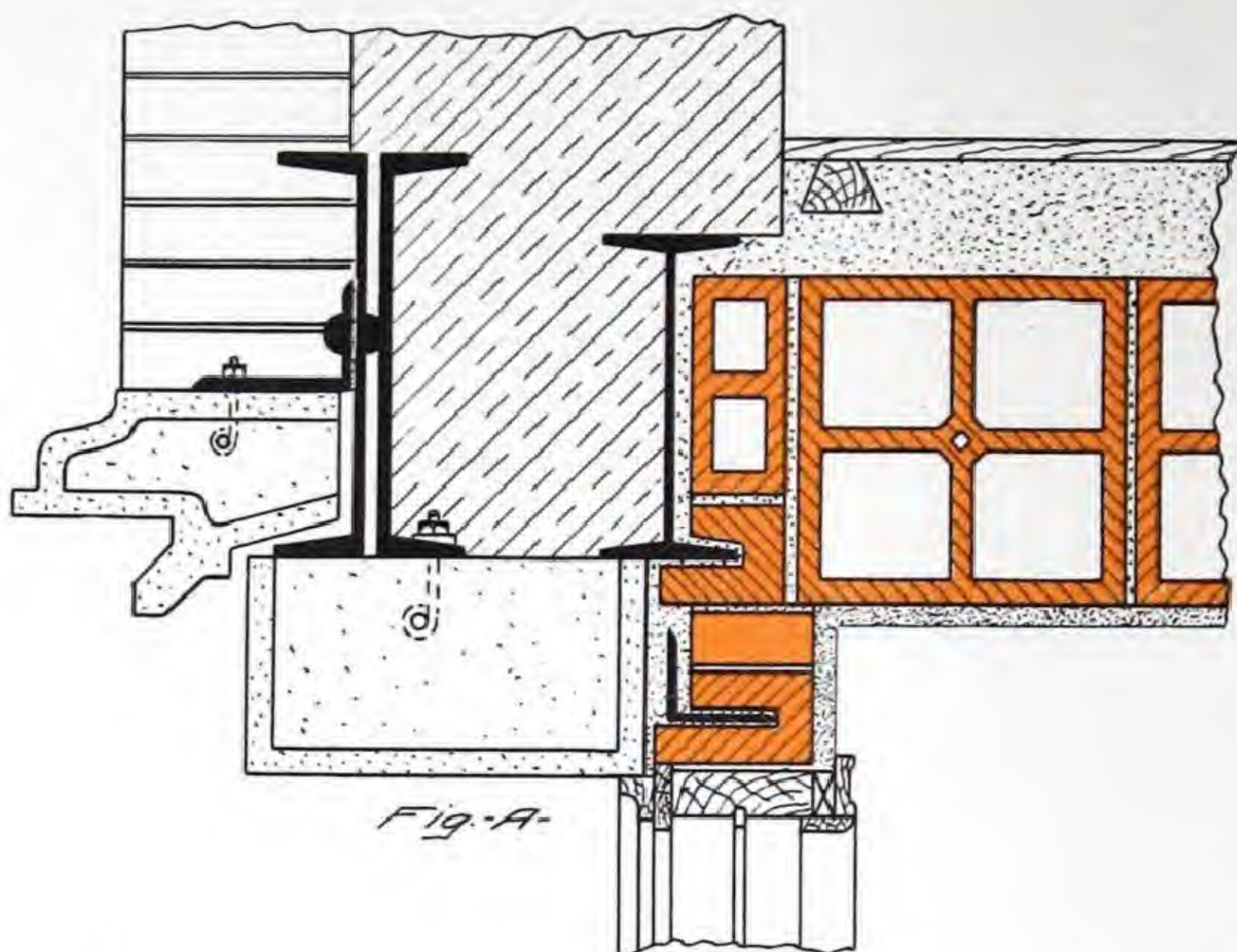


Diagonal Members

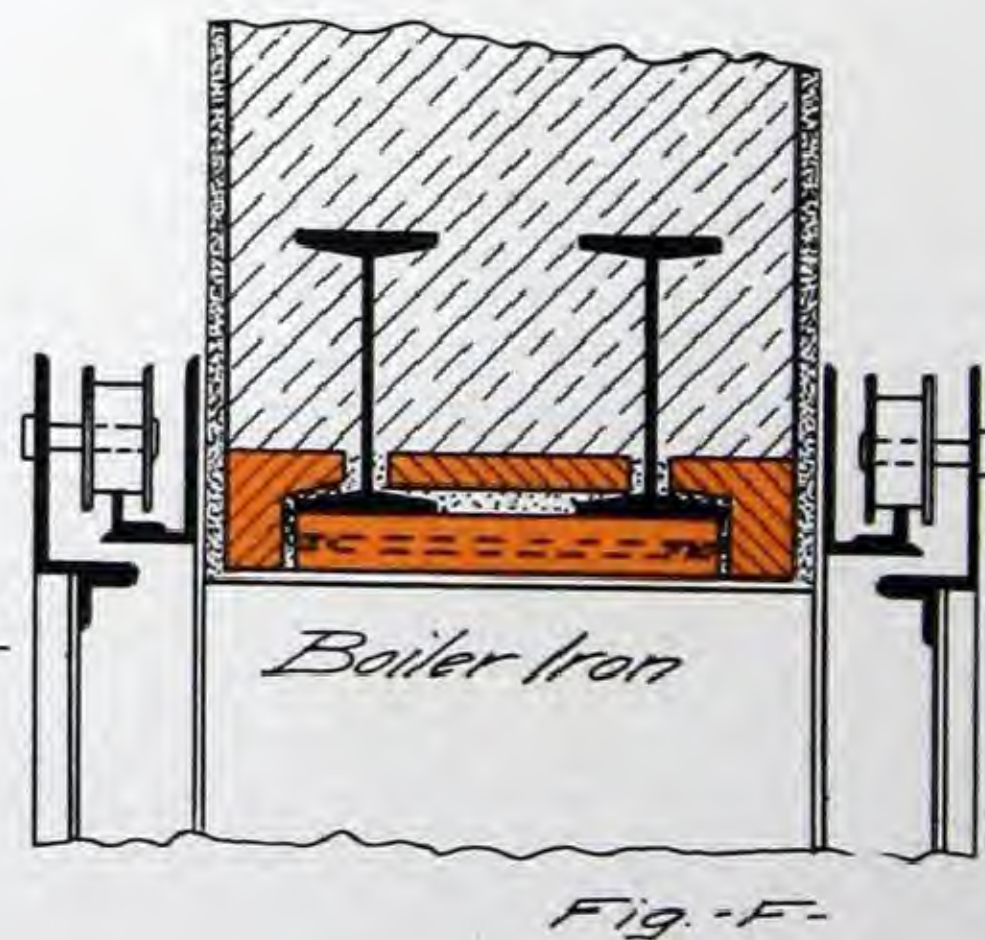
Fire Proofing for Individual Truss Members



*SPANDREL SECTIONS*



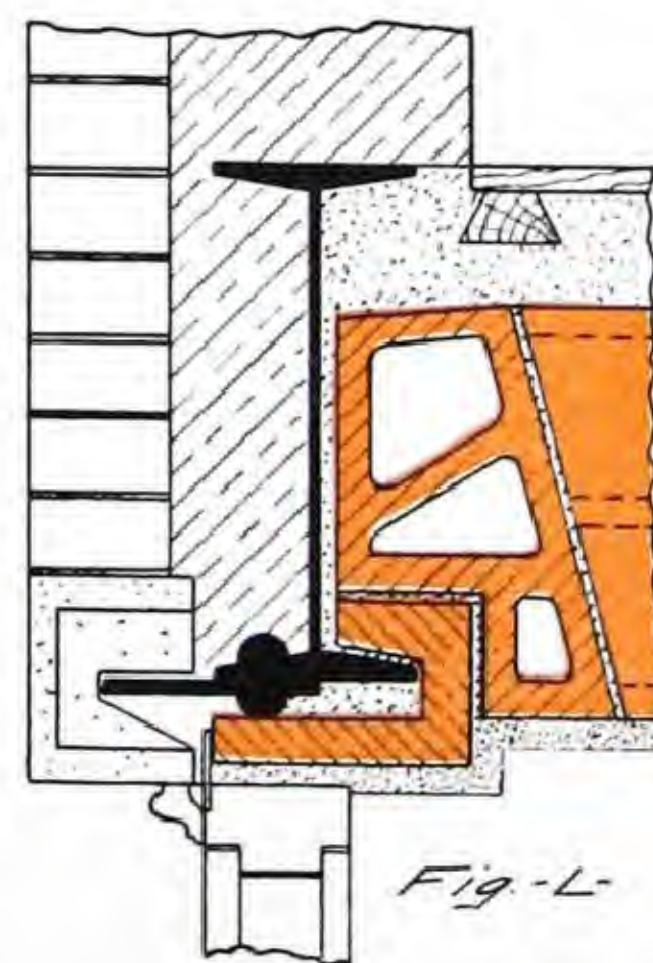
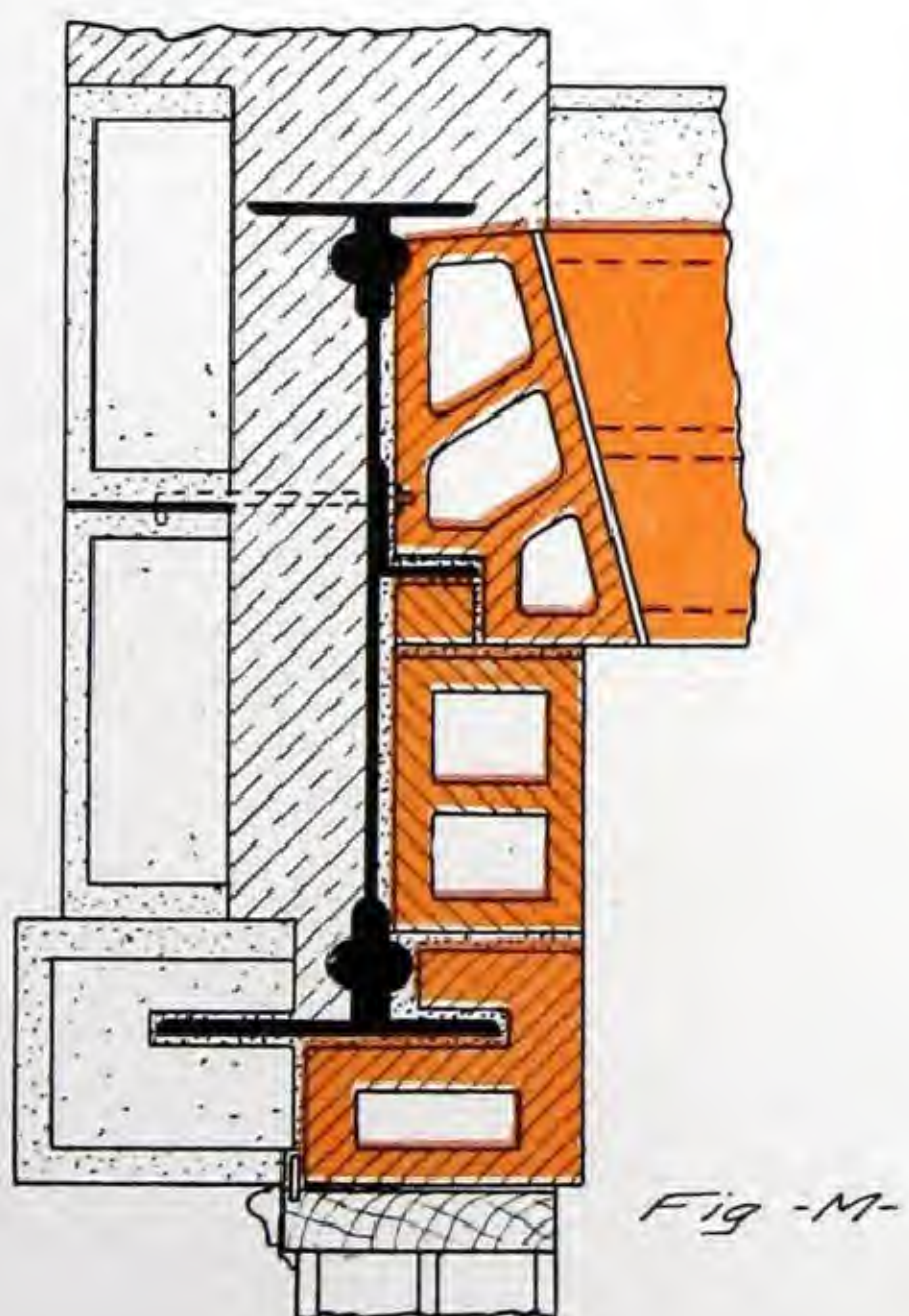
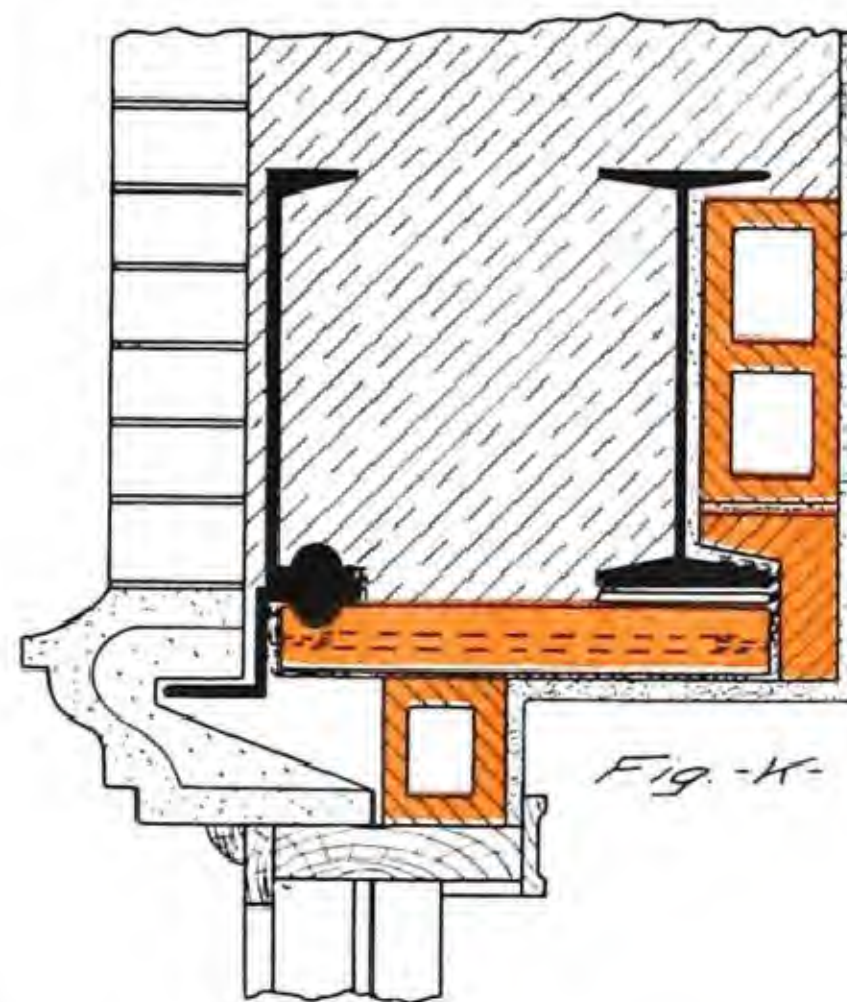
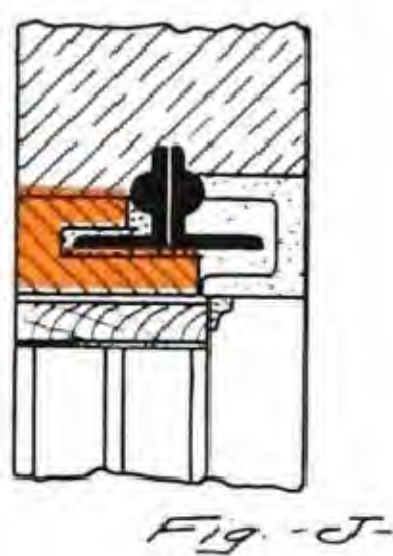
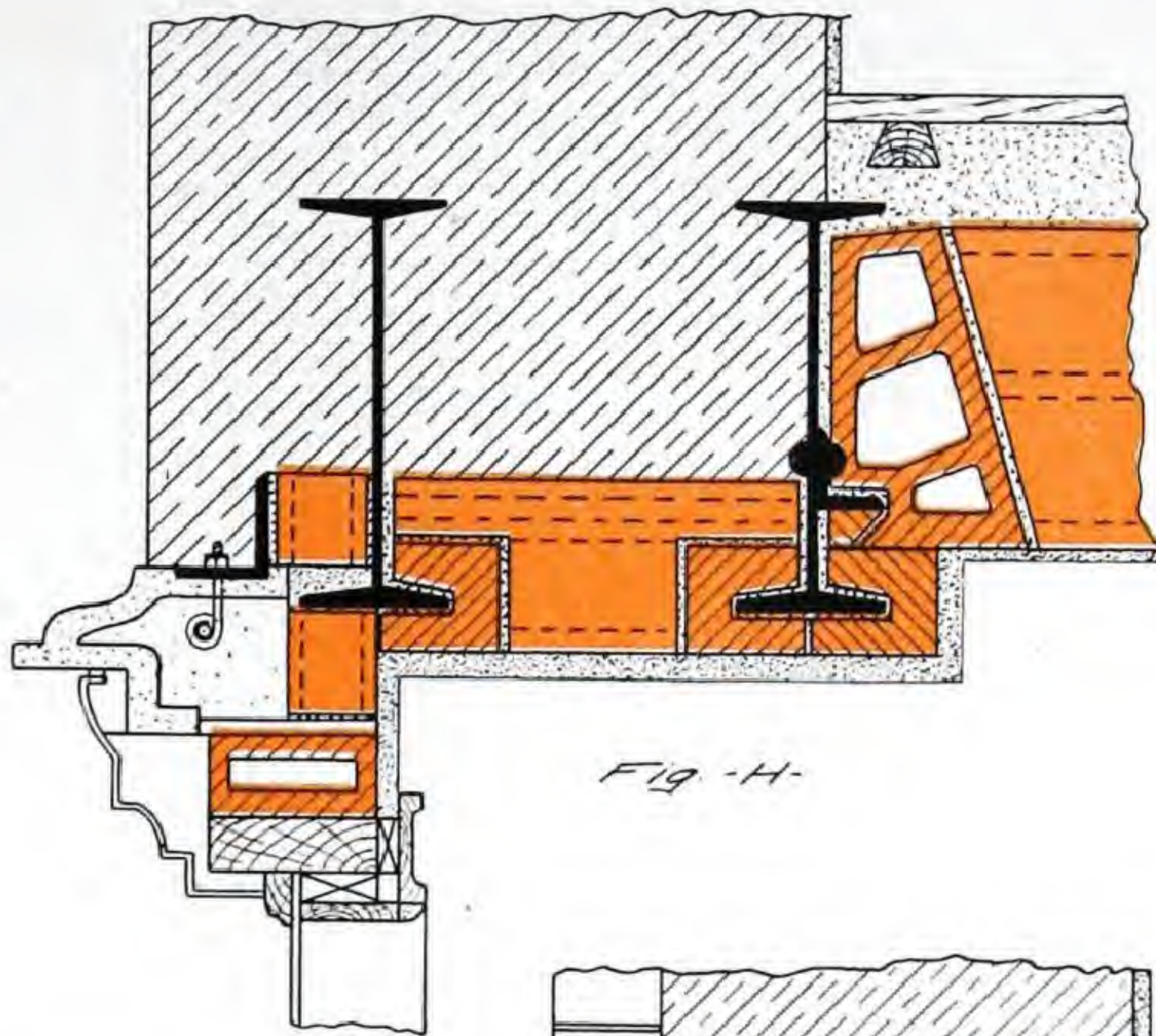
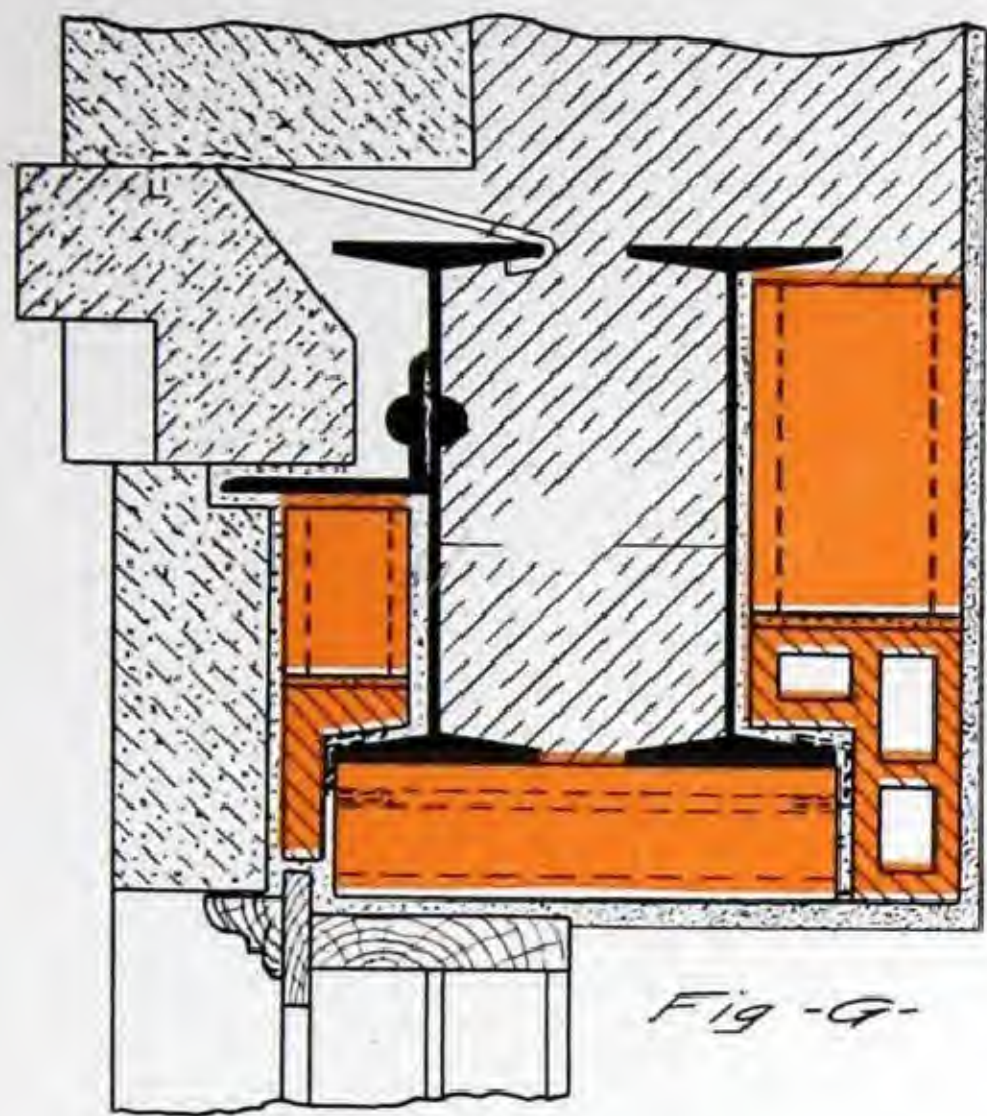
*Sliding Door*





DOMINION FIRE PROOFING COMPANY, *Limited*

*SPANDREL SECTIONS*





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DOMINION FIRE PROOFING COMPANY, *Limited*

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CIVIC BUILDING, EDMONTON, ALTA.

*A. M. Jeffers, Architect*

*Purcell & Foote, Contractors*



## Civic Building, Edmonton Alberta

The New Civic Building, shown on the opposite page, is the first Standard Steel and Hollow Tile Fire Proof Structure to be erected in the City of Edmonton, Alberta, and was Fire Proofed throughout by The Dominion Fire Proofing Company Limited. This Building was originally designed for Reinforced Concrete Floors, but Hollow Tile Arches proved more economical, not only in actual cost, but made a saving of several months in time of completion of the Structure. Work of installation was carried on during the months of December and January, under extreme weather conditions, when concrete construction would have proven unsafe, thereby allowing the Building to be enclosed and Interior Finishing completed during the Winter.

Over sixty carloads of Fire Proofing were used in the Floor and Roof construction, in addition to the fact that all Partitions, Column, Lining and Backing of Brick Walls was performed with Hollow Tile.

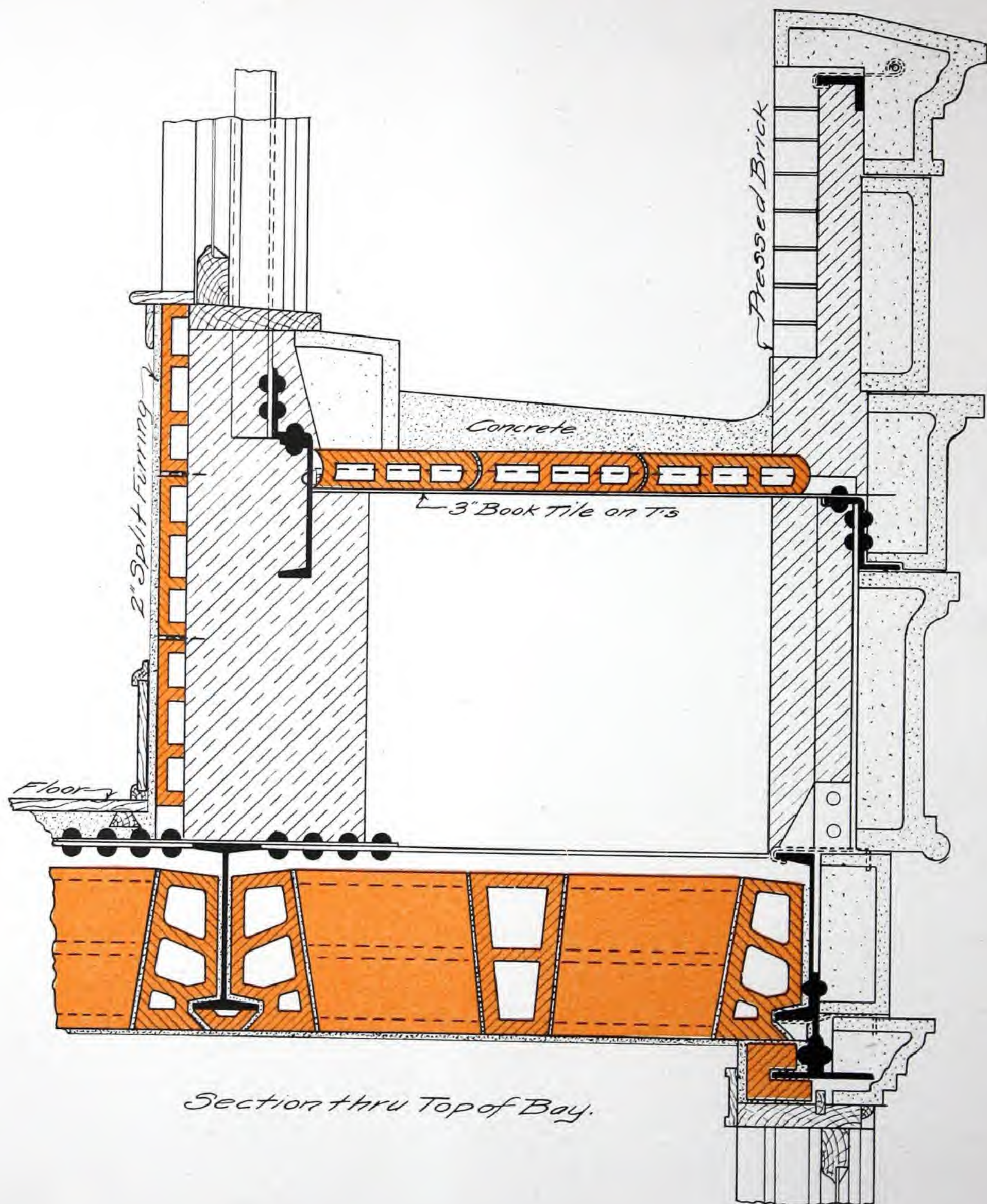


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DOMINION FIRE PROOFING COMPANY, *Limited*

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*BAY WINDOW CONSTRUCTION*



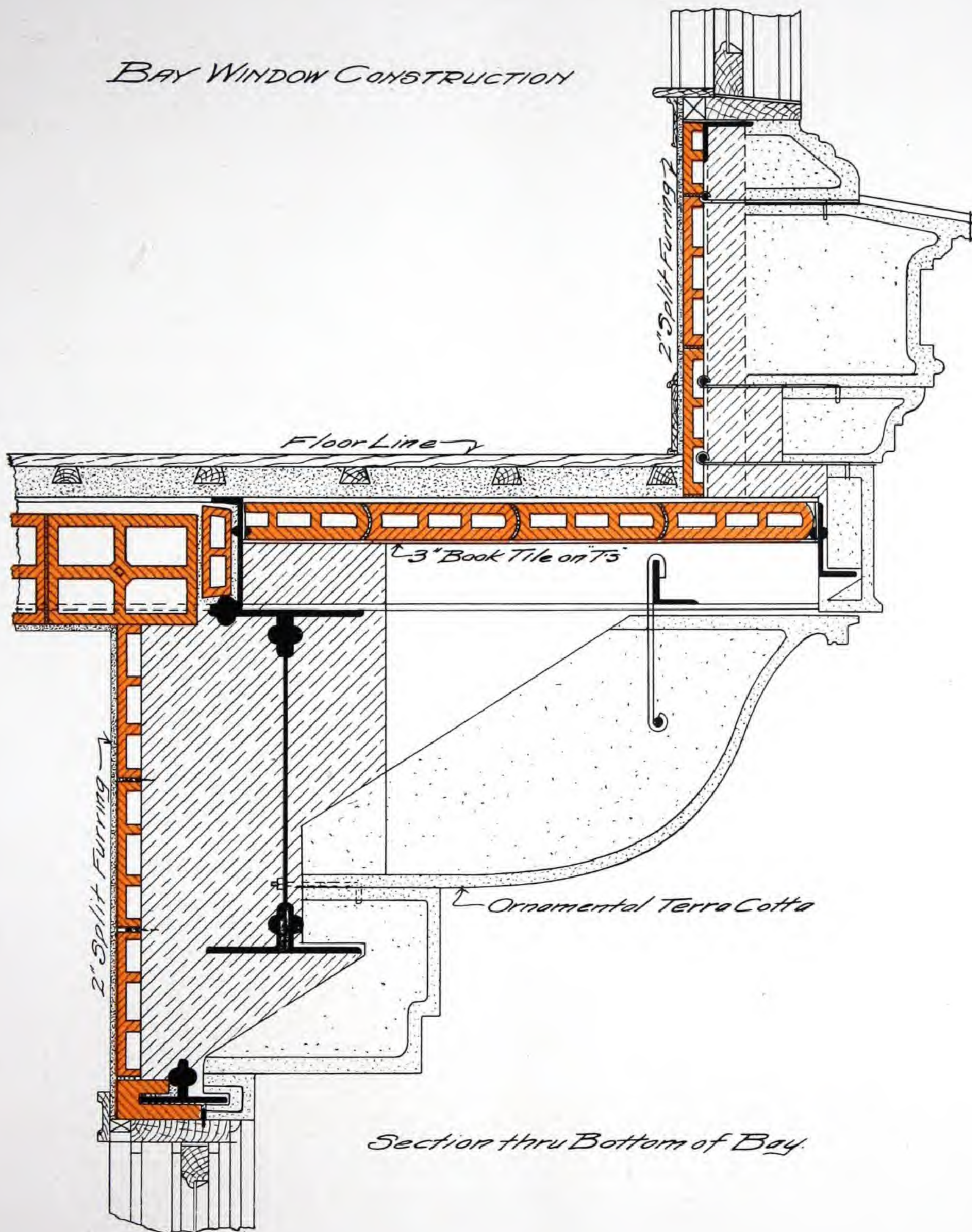


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DOMINION FIRE PROOFING COMPANY, *Limited*

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*BAY WINDOW CONSTRUCTION*





## Column Fire Proofing

Illustrated page 23

As the total Live and Dead Loads throughout the entire Building are carried by the Steel Columns, they are essentially the most vital members of the Structure and should receive special consideration, and be effectively protected from Fire, for if exposed to extreme heat, they would warp and cause total collapse of the Building.

Hollow Tile is particularly adaptable as a Fire Protection in this connection, as any desirable thickness of covering can be provided and in addition Architectural features can be readily carried out without any expense for Special False Work.

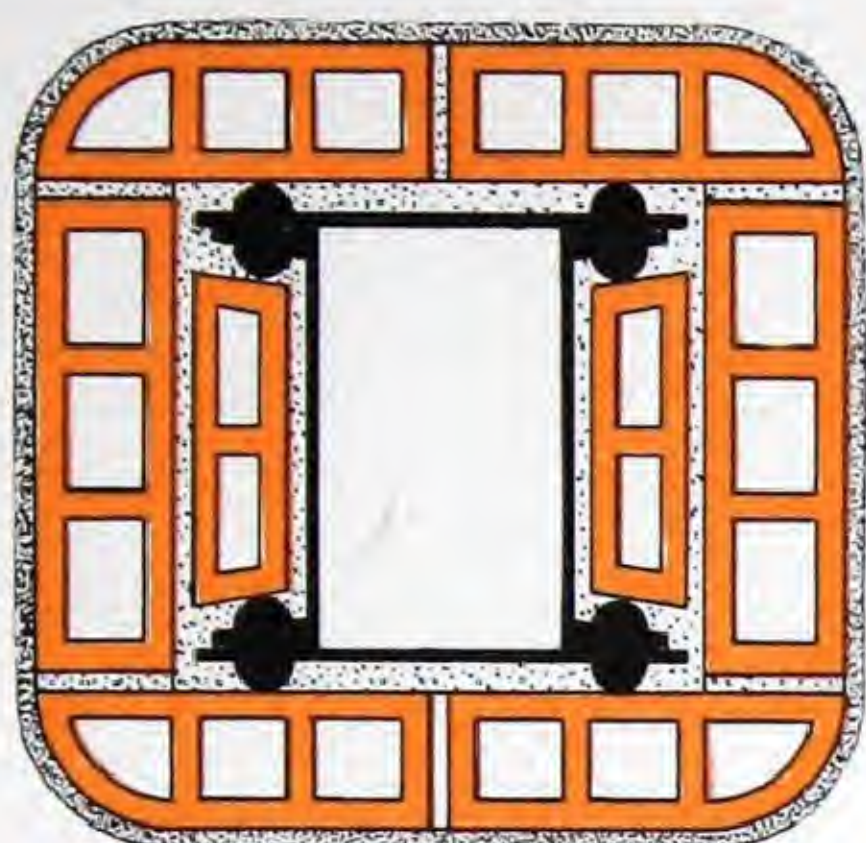
On the following page we show various details of Column Covering, but in no case should Plumbing Pipes, Steam Risers or Electrical Conduits be concealed within the Column Fire Proofing proper. They should be boxed in with separate enclosure, thus avoiding any possibility of exposing the Structural Steel.

COLUMN FIRE  
PROOFING.

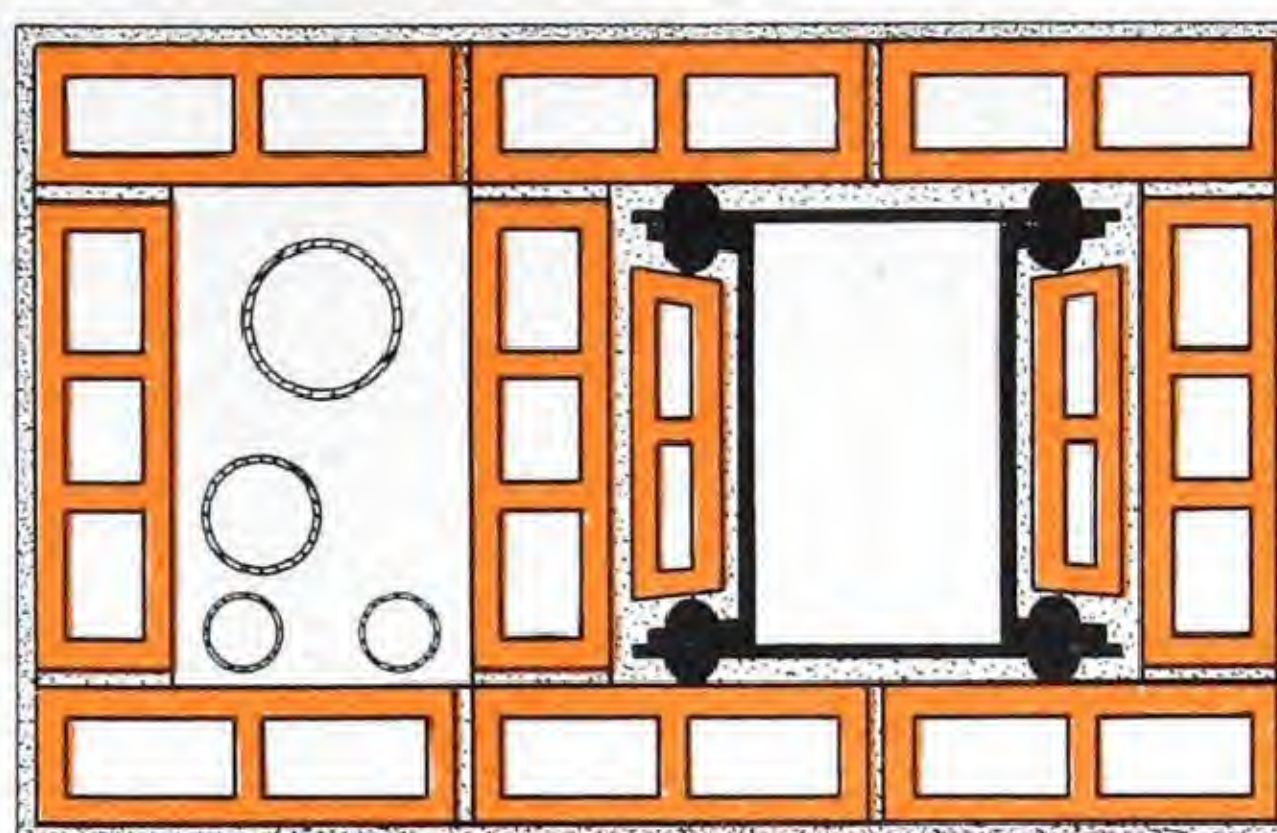
HOLLOW TILE  
METHOD.



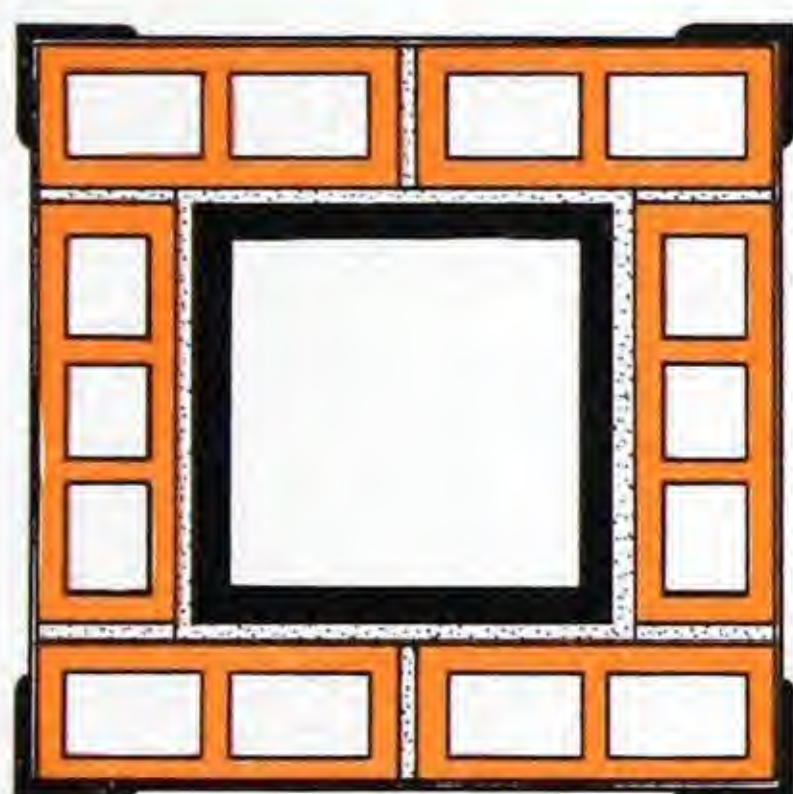
COLUMN FIRE PROOFING



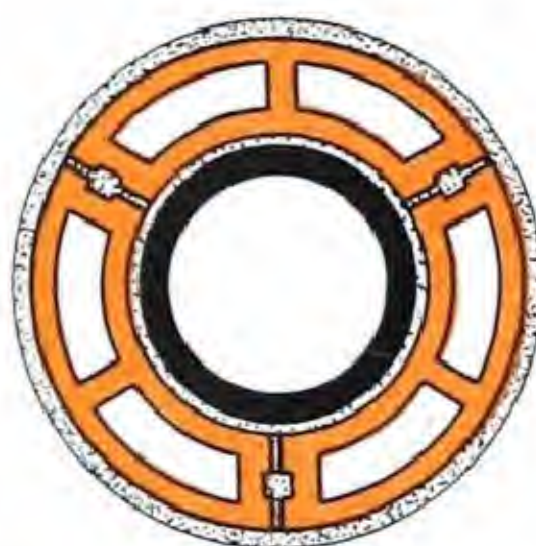
Round Corners.  
Made in 3" x 4" Tile



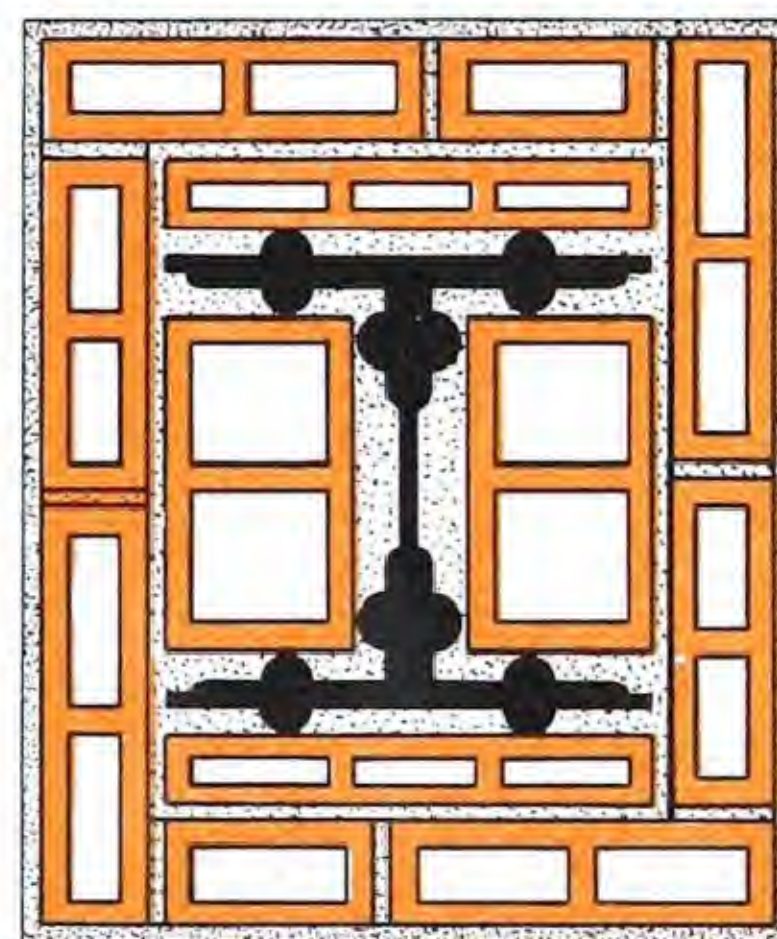
Square Corners showing Pipe Stack  
Tile Made any Thickness desired



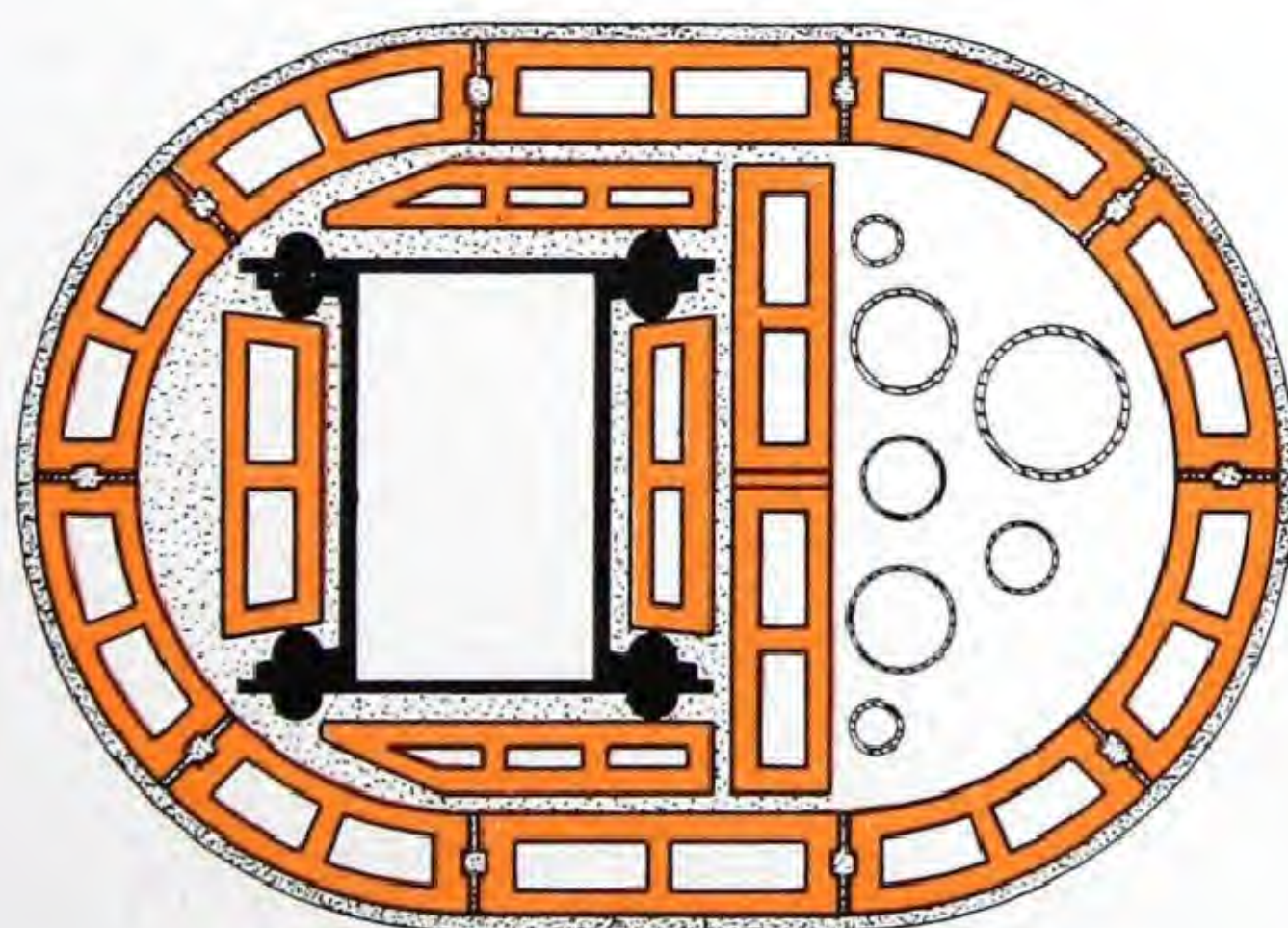
Note Iron Angles for  
Guards.



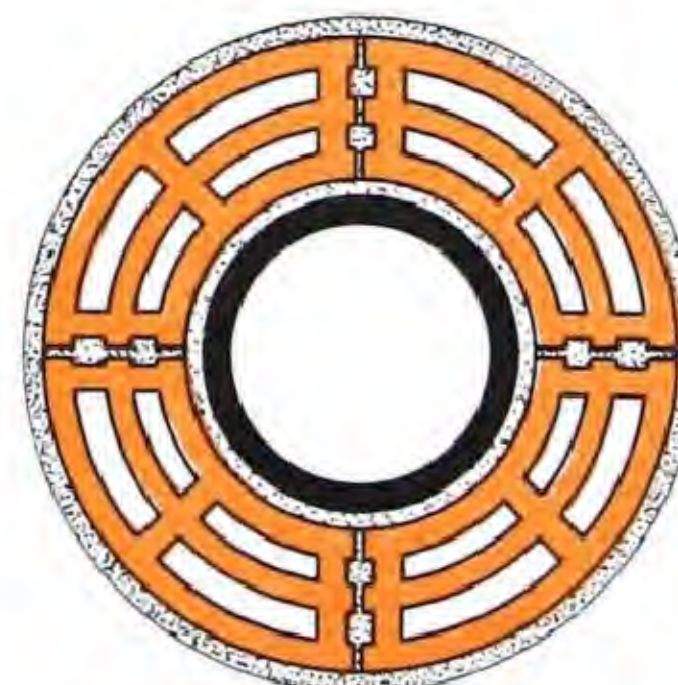
Round Columns  
Made 2" x 3" Tile



Double Covering on  
Flat faces of Columns



Special Treatment of  
Column Covering & Pipe Space



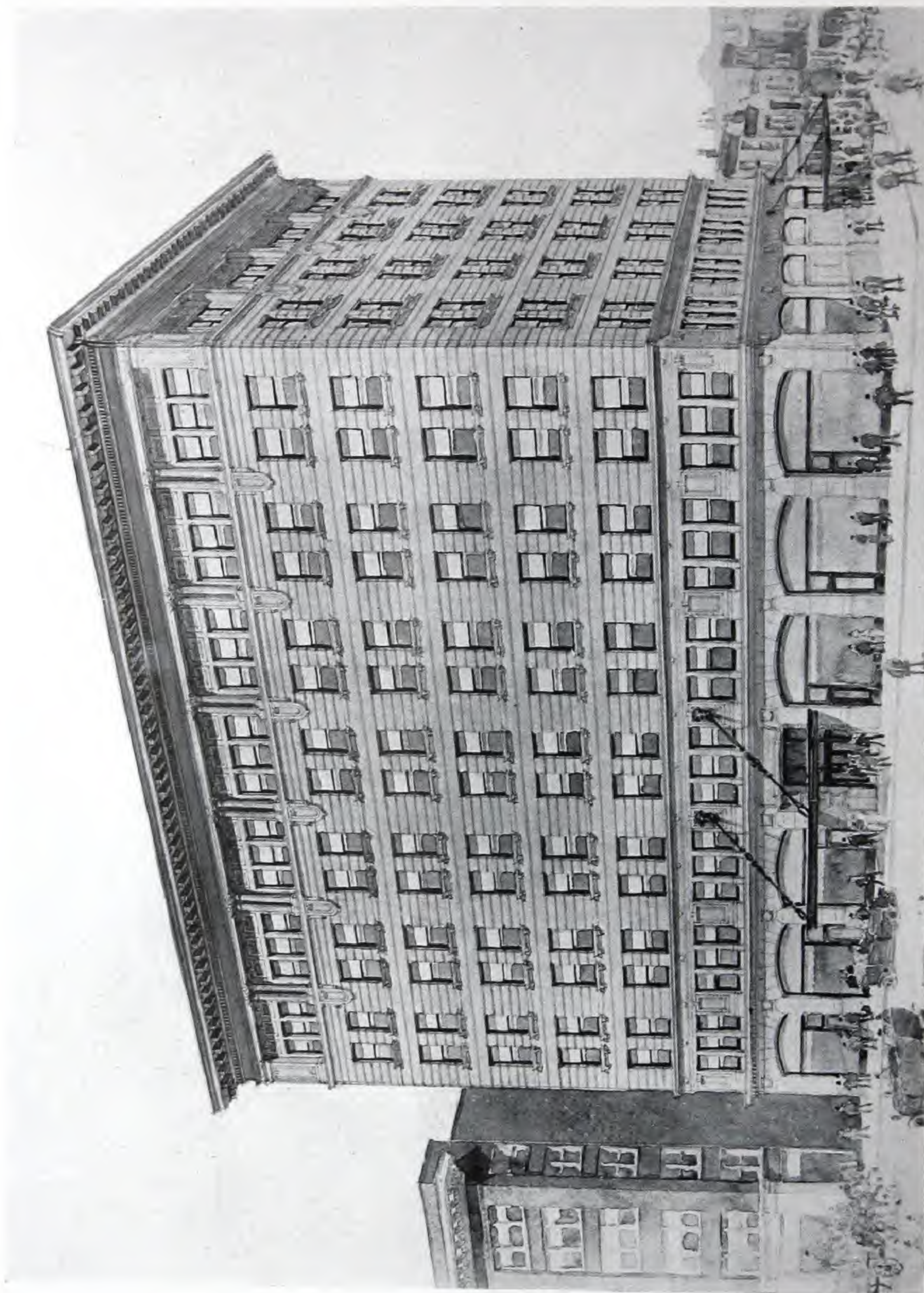
Double Air Space Round  
Column Covering



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DOMINION FIRE PROOFING COMPANY, *Limited*

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CANADA BUILDING, SASKATOON, SASK.

*Jas. Chisholm & Son, Architects*

*Carter, Halls, Aldinger Co., Contractors*



## Canada Building

Saskatoon,  
Sask.

The Canada Building, erected in 1912, is the first Standard Steel Frame and Hollow Tile Fire Proof Building to be constructed in the City of Saskatoon, Sask., and was Fire Proofed throughout by this Company. Ten inch Flat Arches were installed in all Floors and Roof; the Interior Columns were Fire Proofed with a three inch Covering of Hollow Tile, and Hollow Tile of various thicknesses were used for all Partitions and Lining of outside walls.

On page 26 is reproduced a photograph taken in the above Building. The Floor Arches, Girder and Column Covering, also Tile Partitions and Furring are clearly shown.

*Hollow Tile Exterior Walls, C.P.R. Shops, Calgary, Alta.*

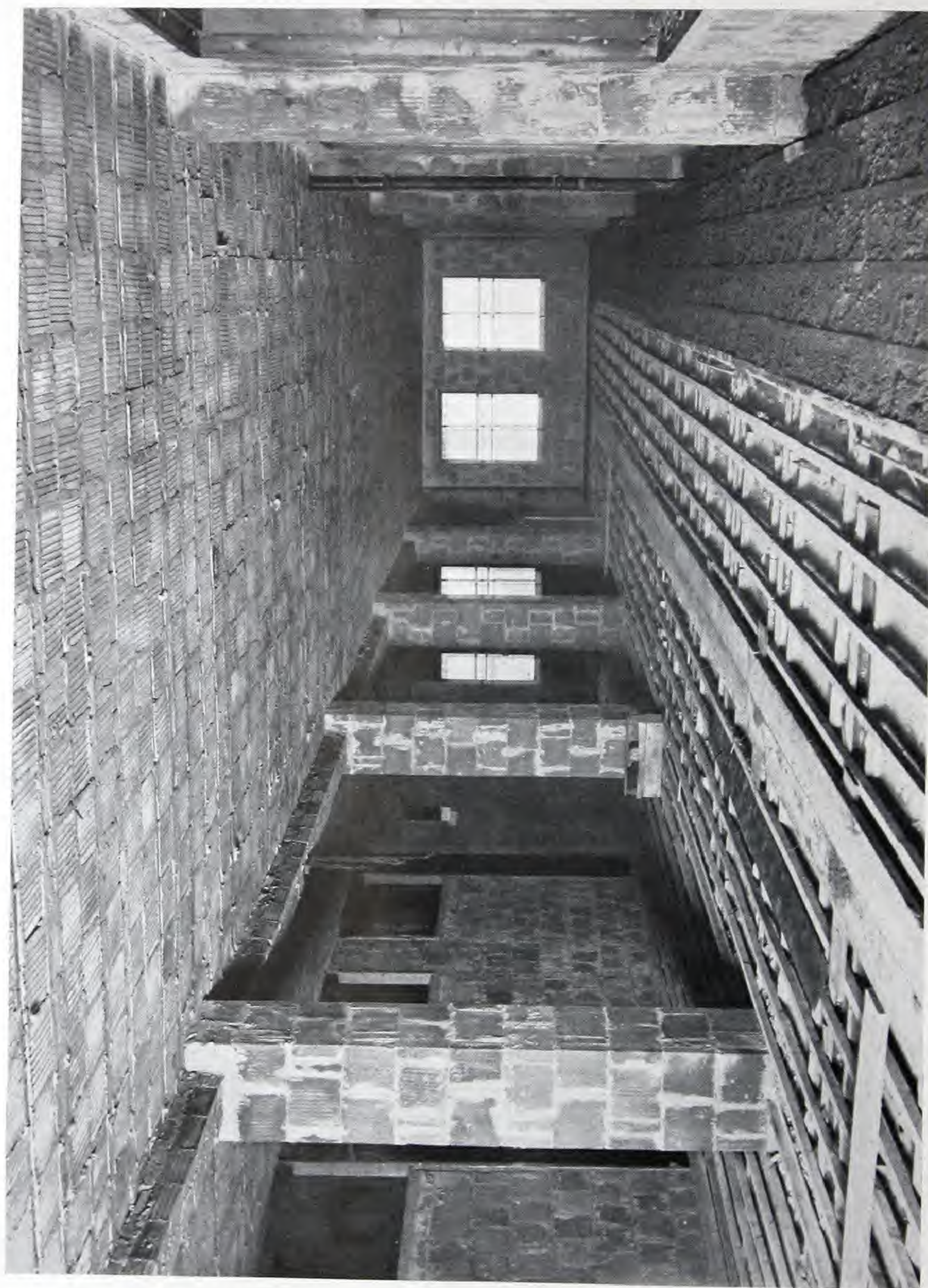




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DOMINION FIRE PROOFING COMPANY, *Limited*

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INTERIOR VIEW ON THIRD FLOOR, CANADA BUILDING, SASKATOON



## Hollow Tile Partitions

Too little attention is given to this important part of Building Construction, as there are numerous cases where every precaution has been taken to make the Structure Fire Proof throughout, except that an inferior material has been used for Interior Walls, usually on the theory that they are solely for the purpose of subdividing the rentable area.

Fire, at its origin in a Building, is local, and if confined by Fire Proof Barriers, could even be allowed to burn itself out without any appreciable damage except to inflammable contents. If confined only at Ceiling and Floor by a real Fire Proof material, it spreads throughout entire Storey and eventually by way of Well Holes and Shafts to entire Building, unless checked in time by outside agency. It is advisable to consider the dividing Partitions as a Fire Barrier and construct accordingly, using a material that is not only a "Fire Retardant," but "Fire Proof."

There are numerous so called "Incombustible" or "Fire Retardant" materials on the market, in some cases being lighter in Weight and Cheaper in cost of erection than Hollow Tile, but it is inconsistent policy, at the least, where the entire safety of a Building, its occupants and contents are jeopardized at a possible saving in "First Costs."

Hollow Tile Blocks are carried regularly in stock sizes of 12"x12" Face by either 2", 3", 4", 5", 6", 8", depending on thickness of wall desired, also either smooth faced or heavily scored, whether to receive plaster or to be left unfinished. In all cases the Blocks incorporate at least one air cell, and are not only advantageous as a Fire Protection, but on account of air space contained are practically proof against transmission of sound and extreme temperatures.

On another page are shown Cuts of Standard Partition Blocks that are carried in Stock. Special sizes can be Manufactured and we solicit any inquiry where other dimensioned Blocks are required.



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DOMINION FIRE PROOFING COMPANY, *Limited*

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*PARTITION TILE*  
*MADE SMOOTH FACE OR HEAVILY SCORED*



*2x12x12*



*3x12x12*



*4x12x12*



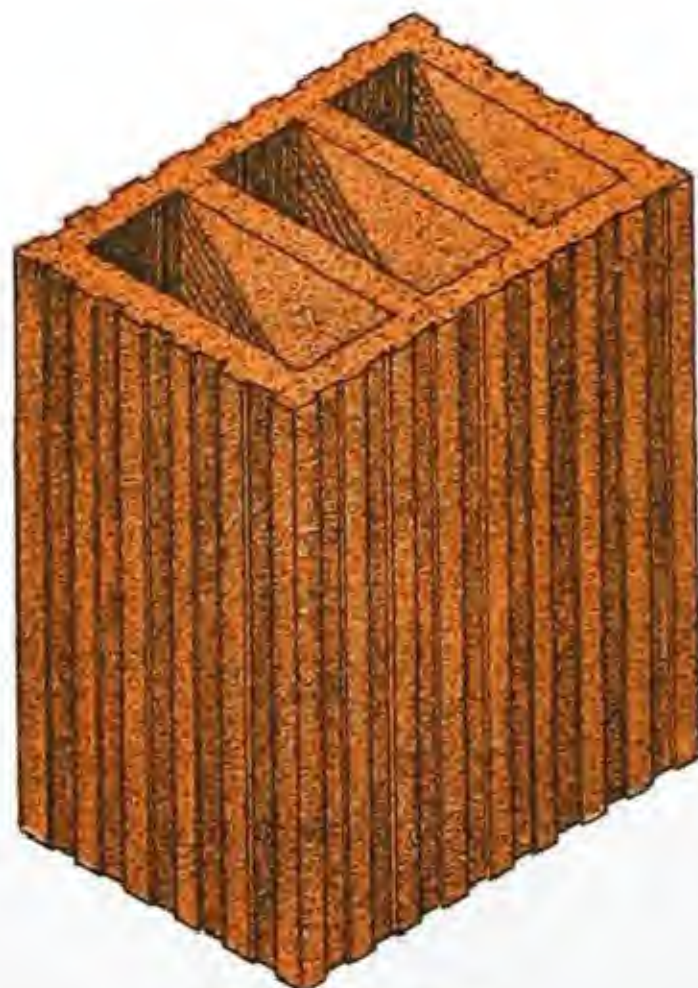
*5x12x12*



*6x12x12*



*6x12x12*  
*Double Air Space*



*8x12x12*



*8x12x12*  
*Double Air Space*

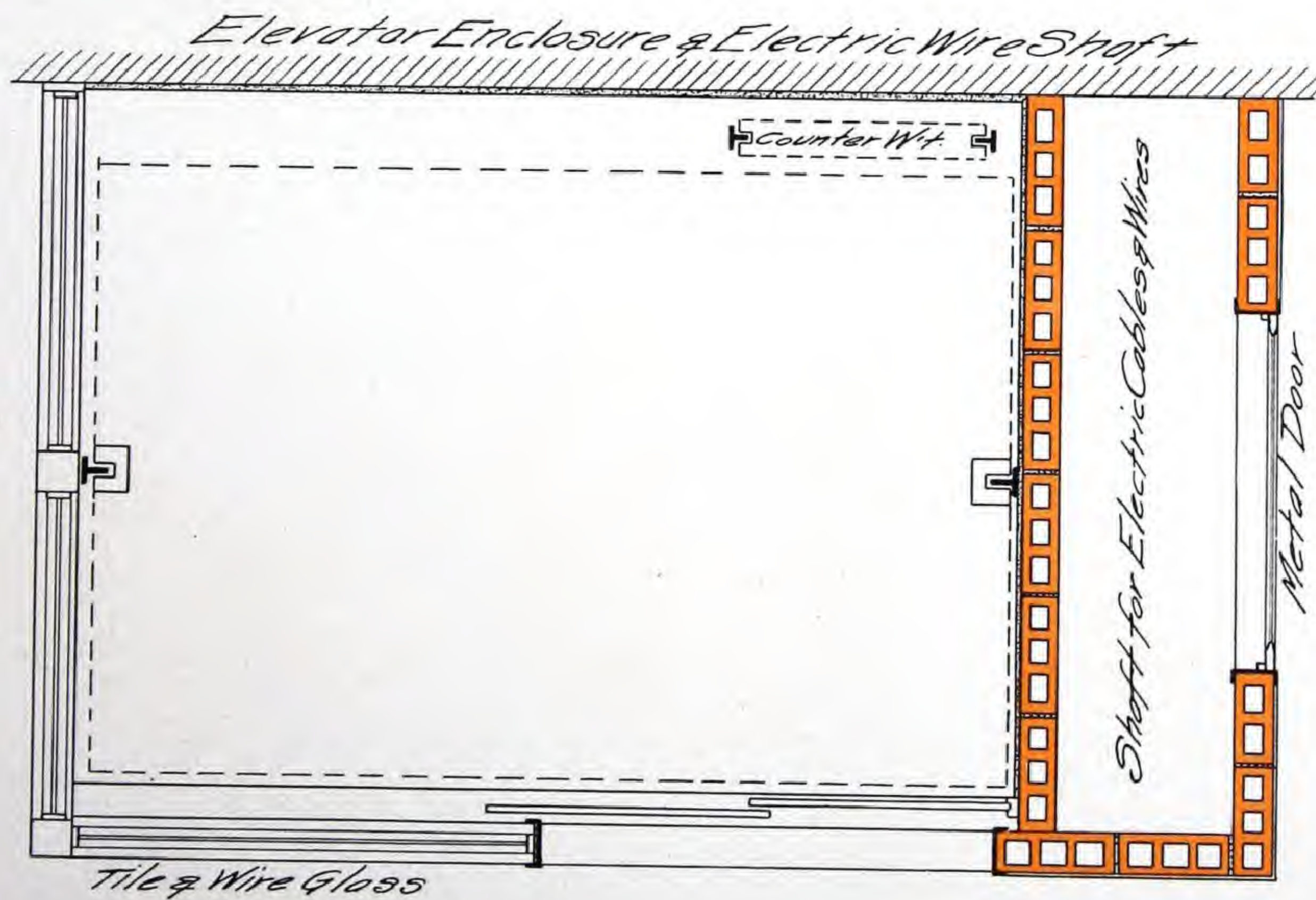
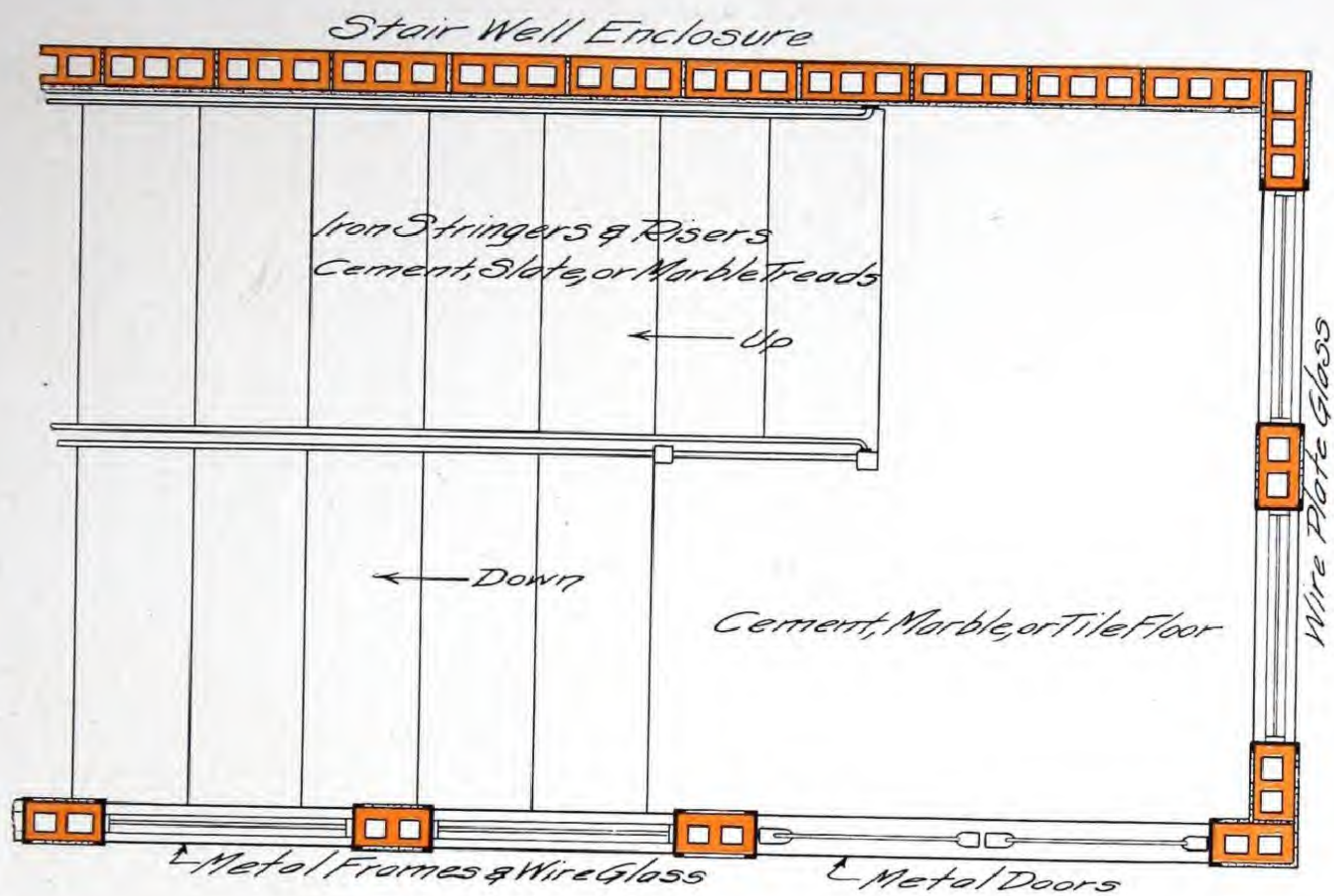


*5x8x12*



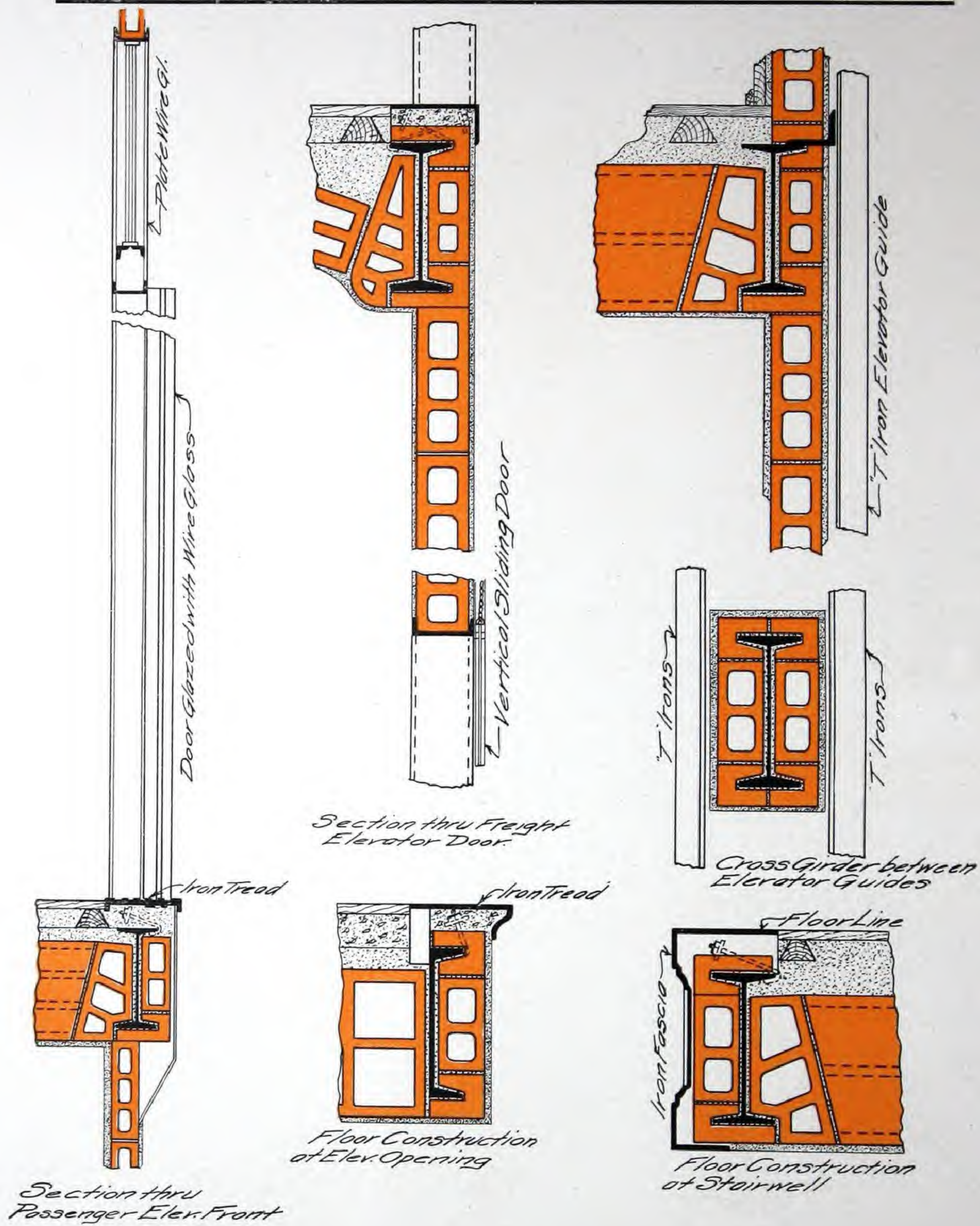
DOMINION FIRE PROOFING COMPANY, *Limited*

*HOLLOW TILE PARTITION DETAILS*





**DOMINION FIRE PROOFING COMPANY, Limited**



# FIRE PROOFING DETAILS OF CONSTRUCTION AT ELEVATOR & STAIR WELLS



## Book Tile and its Uses

Illustrated following pages

Up to the date of issue of this Catalog, the actual use of Hollow Book Tile has been practically negligible in Western Canada, although there are many kinds of Construction where it can be used to economical advantage. It forms a light Fire Proof Roof, and incidentally furnishes insulation against the extreme temperatures experienced in this climate.

Not only in large Building Construction where Book Tile may be used for Bulk Heads, Elevator Pits, Hung Ceilings, Vault Decks, Main and Pent House Roofs, but also for Factories or Warehouses where there is practically no live load to be considered, aside from Wind and Snow loads, it is particularly advantageous. Many of the larger Manufacturing Companies in Cities where the use of Hollow Tile has been popular and extensive for years, specify throughout all their Buildings a "T" Iron and Book Tile Roof (with Composition Roof Finish) thereby securing an efficient Fire and Weather Protection at minimum cost.

On following pages we show various uses of Book Tile and refer particularly to Page 33 for Main Roof and Saw Tooth Skylight construction.

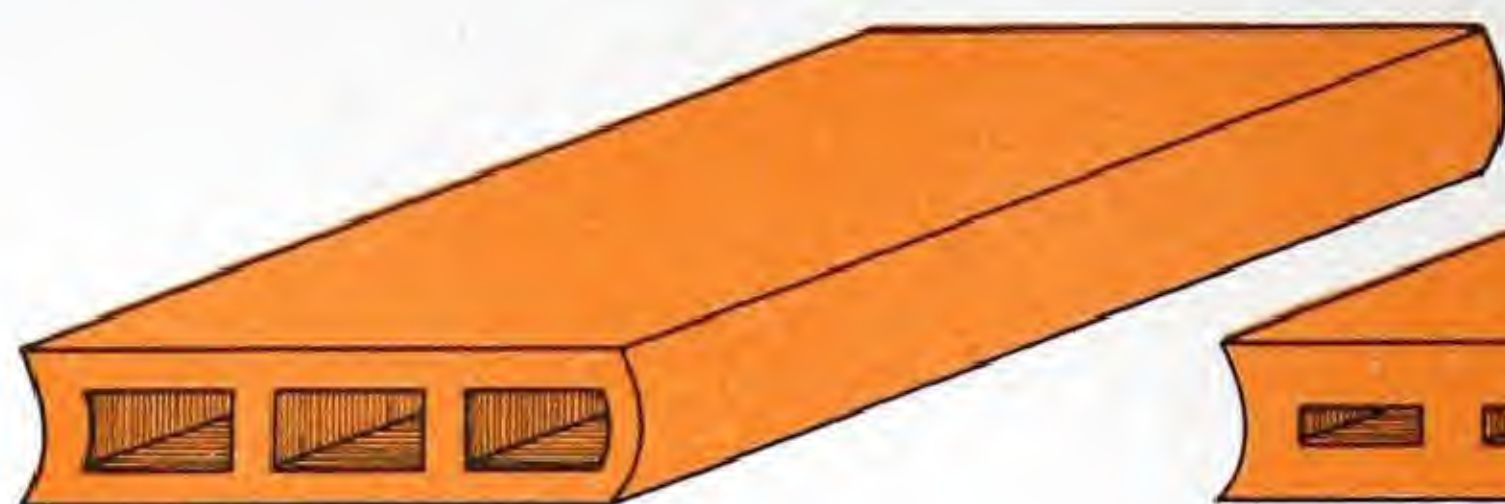


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DOMINION FIRE PROOFING COMPANY, *Limited*

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*BOOK TILE & FURRING TILES*

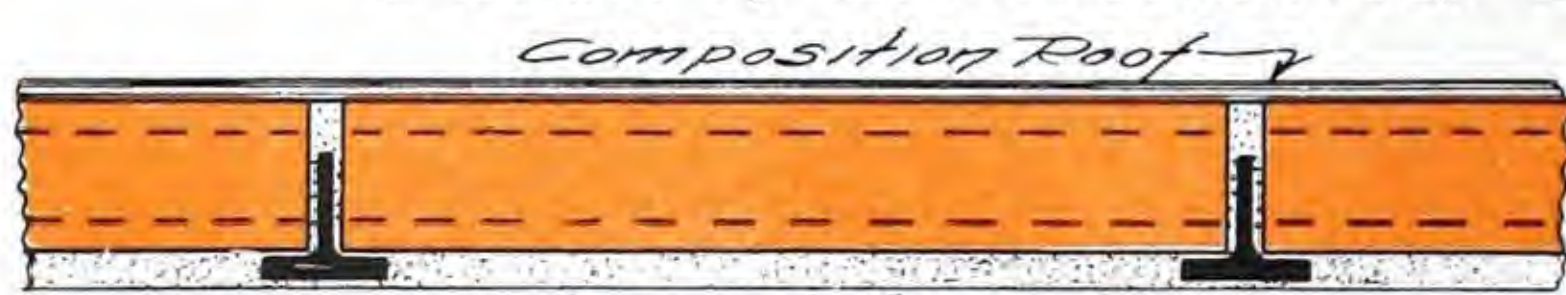


*3x12x17 1/4"*  
*Light Book Tile*

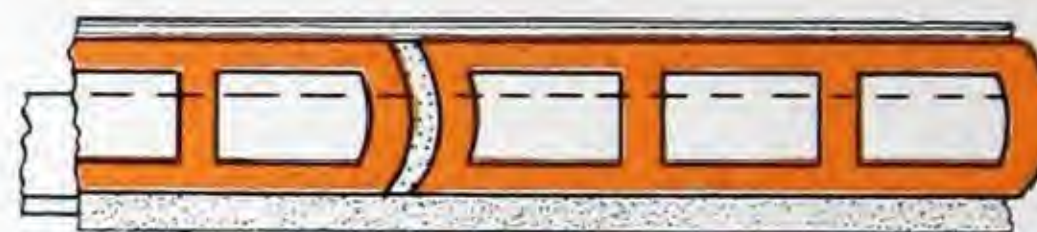


*3x12x17 1/4"*  
*Heavy Book Tile*

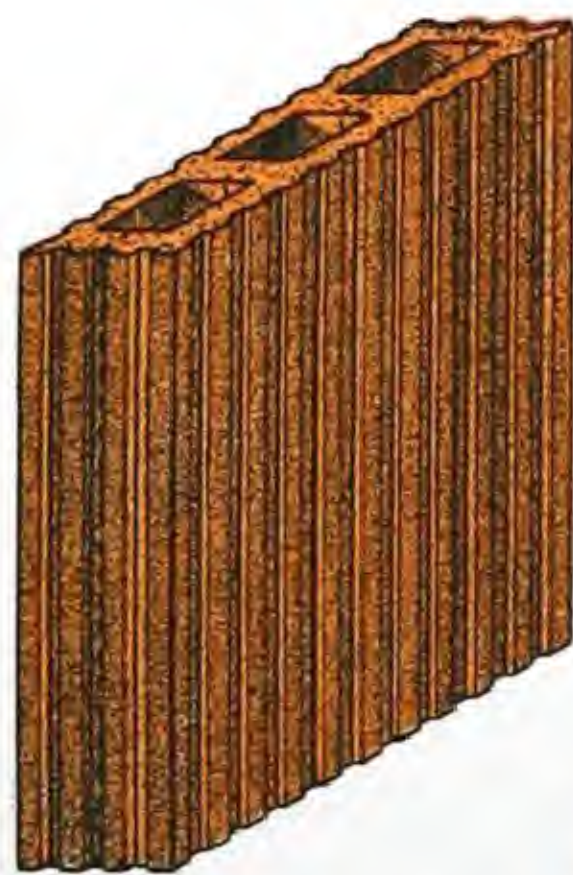
*Detail of Book Tile Roof Construction*



*T-irons 18" Centers*



*Plaster*



*3x12x12 Split*



*Single Block*

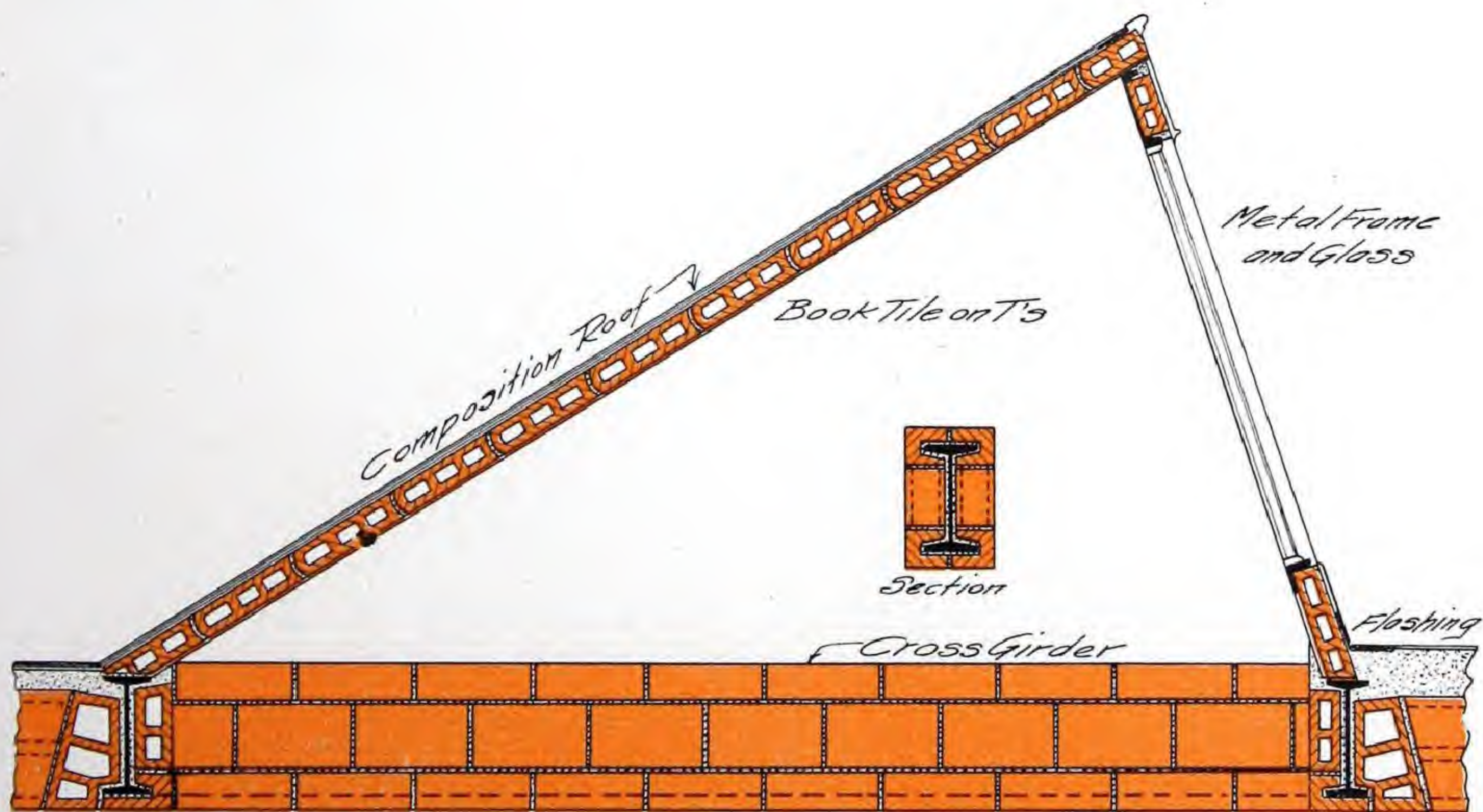
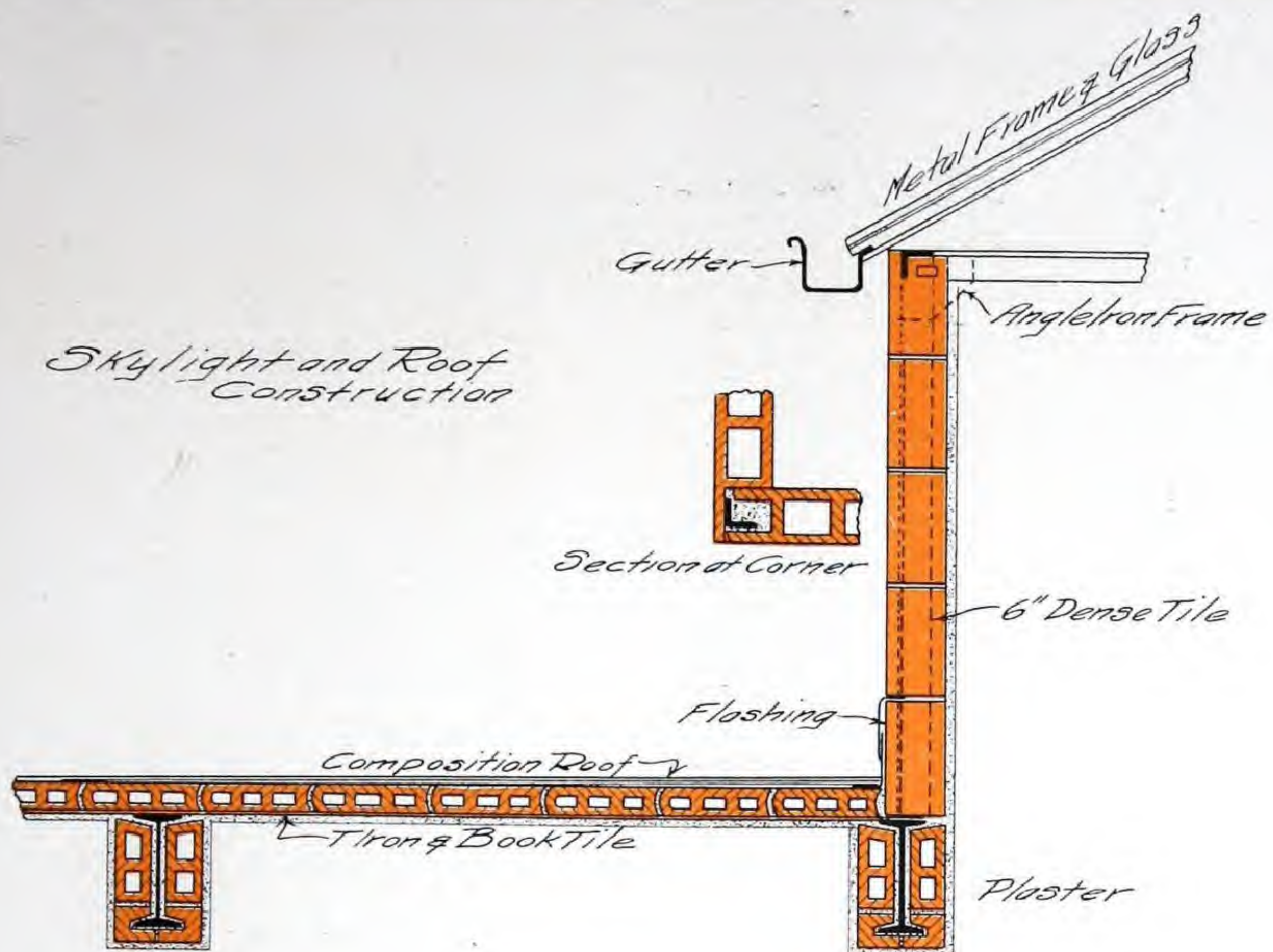


*4x12x12 Split*

*SPLIT FURRING TILE*



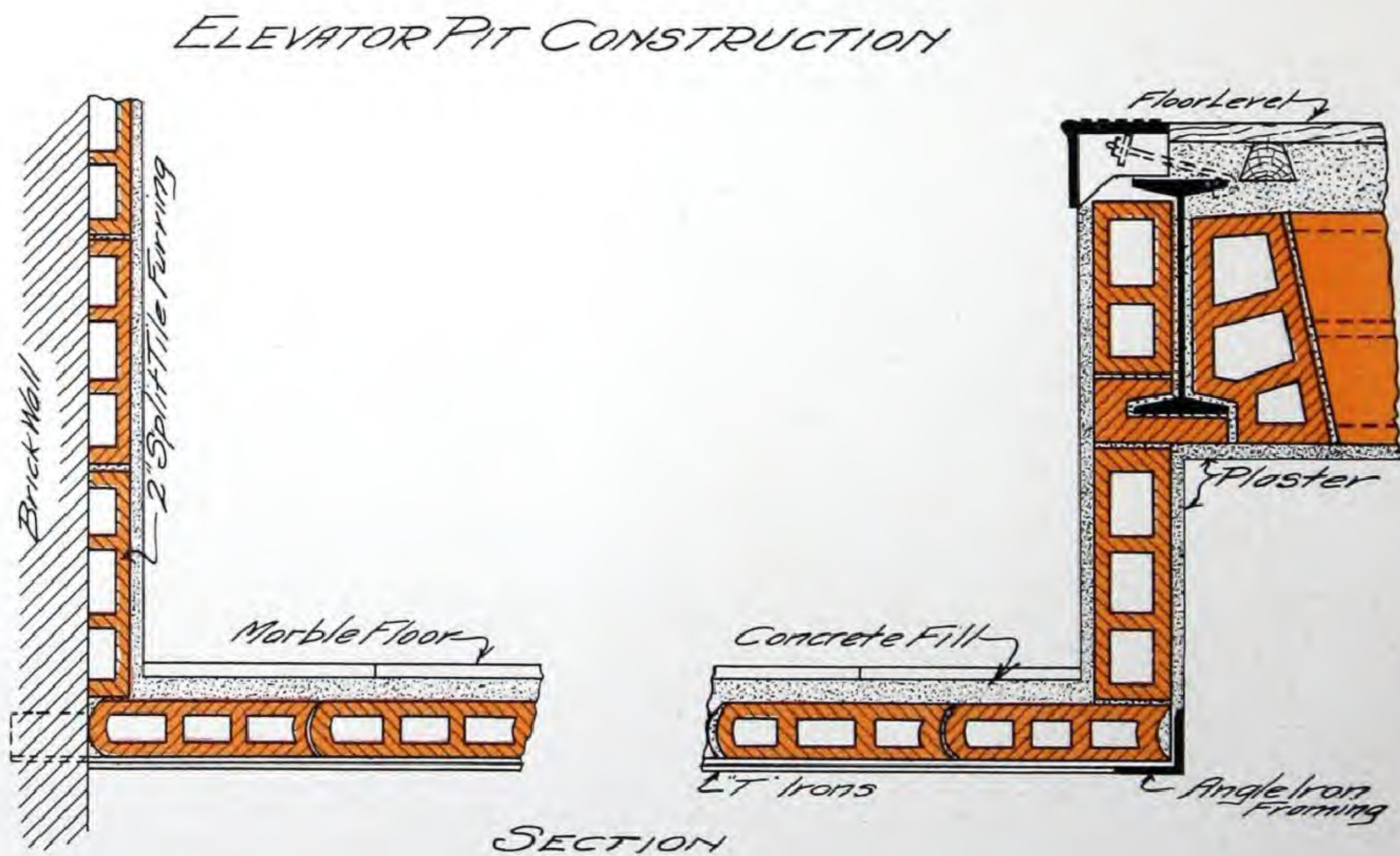
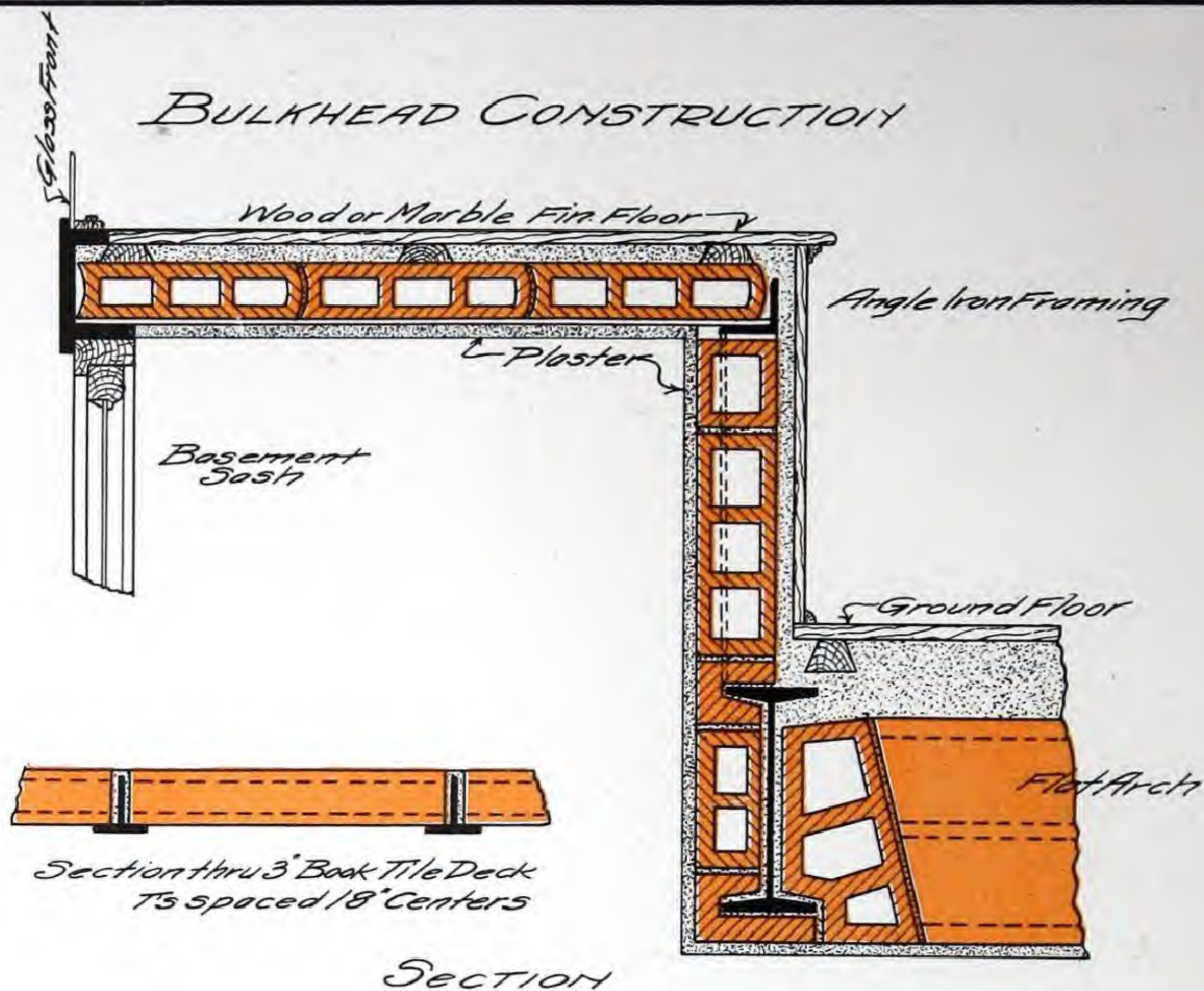
DOMINION FIRE PROOFING COMPANY, Limited



*Section thru Sawtooth Skylight*

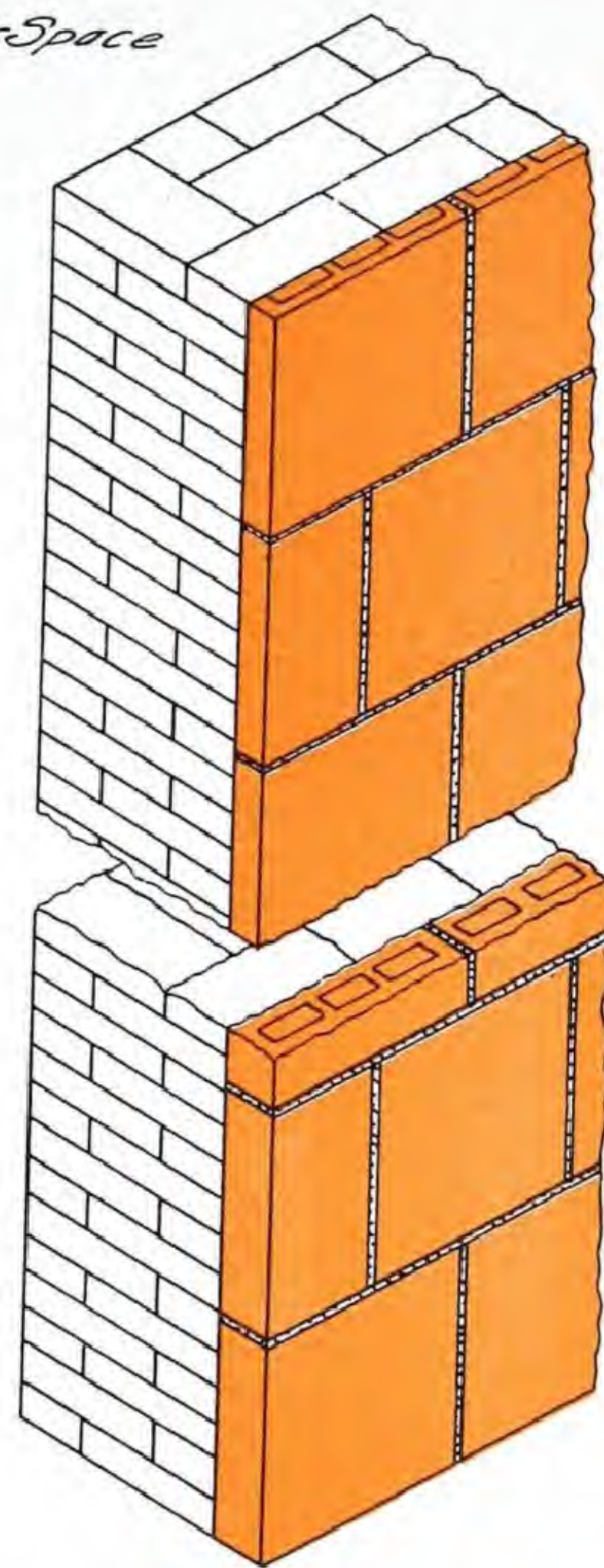
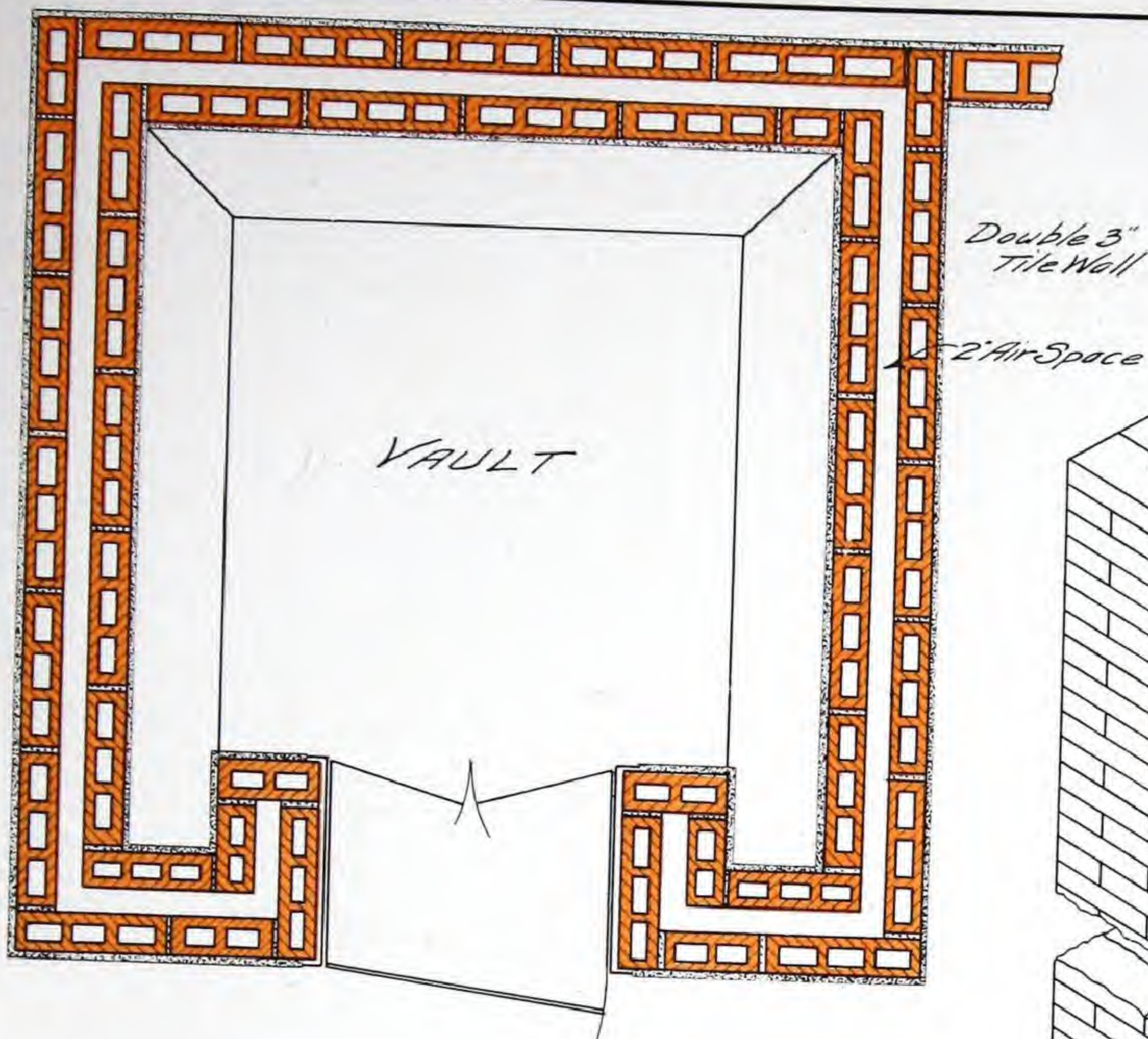


# DOMINION FIRE PROOFING COMPANY, Limited

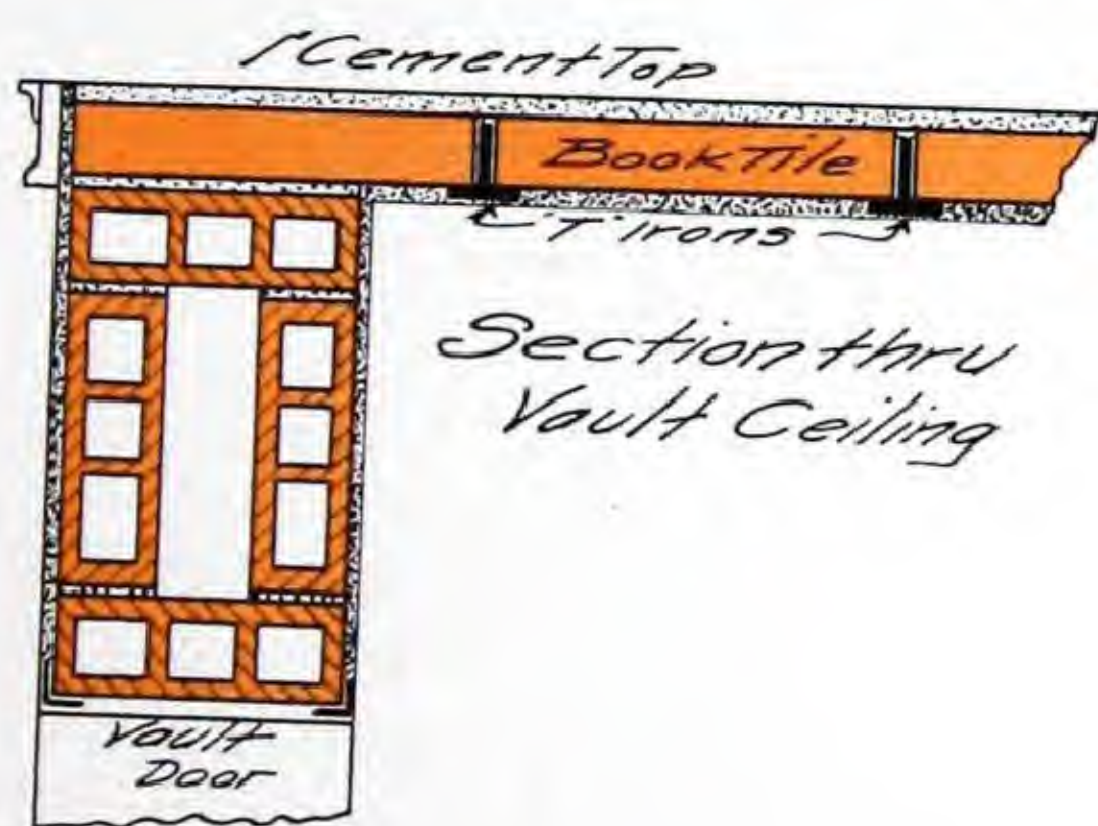




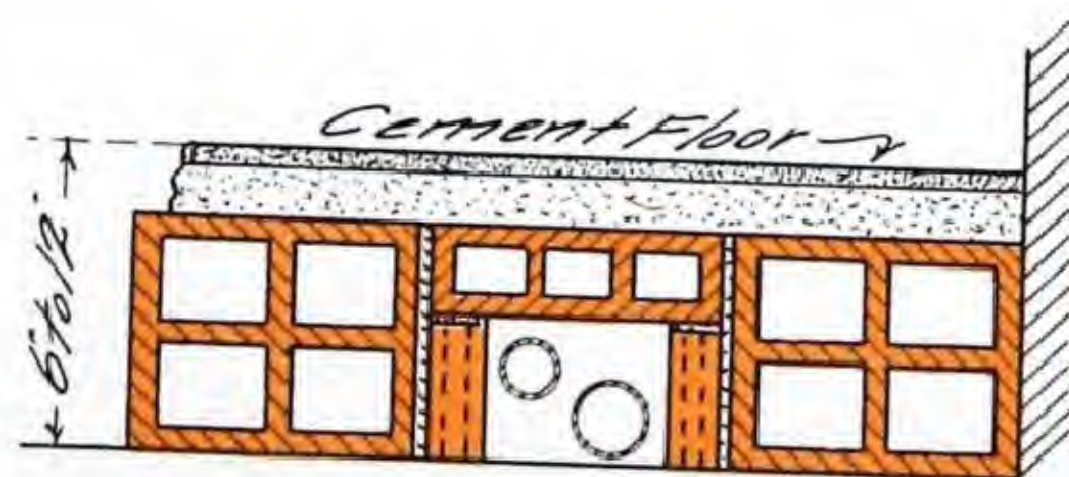
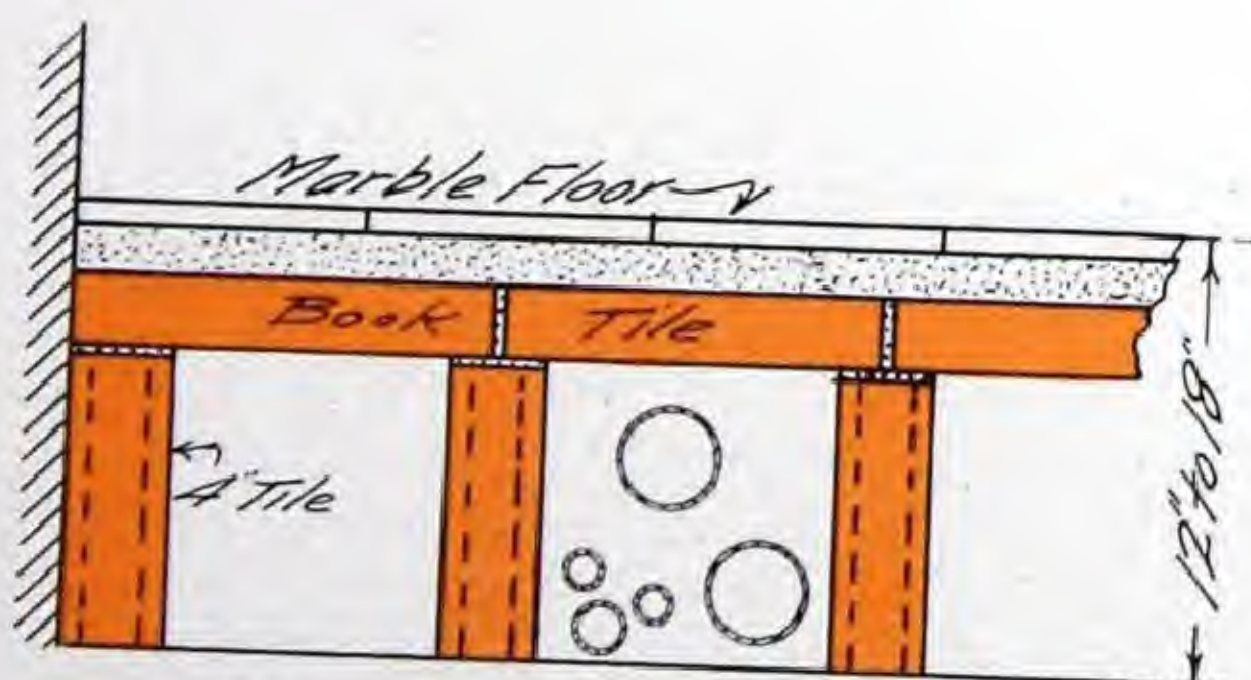
DOMINION FIRE PROOFING COMPANY, Limited



Sections thru Wall Furring



Section thru Vault Ceiling



RAISED FLOORS TO CONCEAL PLUMBING PIPES IN TOILET ROOMS



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DOMINION FIRE PROOFING COMPANY, *Limited*

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*Storey & Van Egmond, Architects*

*McCALLUM, HILL BUILDING*  
*Regina, Sask.*

*Wilson & Wilson, Contractors*



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DOMINION FIRE PROOFING COMPANY, *Limited*

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## McCallum, Hill Building

Regina,  
Sask.

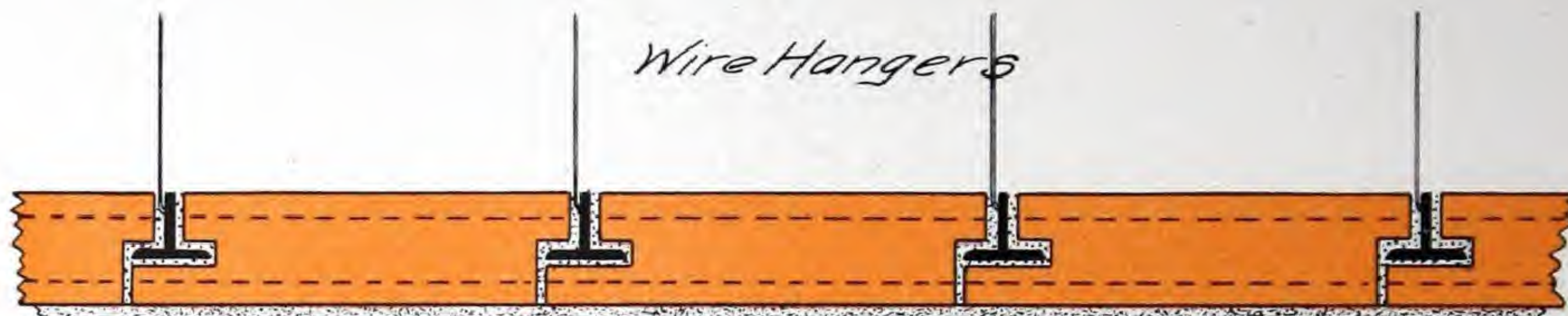
The McCallum, Hill Building, shown on opposite page, was the first structure to be erected in the city of Regina of Standard Steel and Hollow Tile Construction. Over 80 car loads of our material were used in floor construction alone, and the rapidity with which the Fire Proofing was installed was particularly noteworthy, resulting in a considerable saving in time of completion of the Building.

*Hollow Tile Exterior Walls, C.P.R. Shops, Calgary, Alta.*



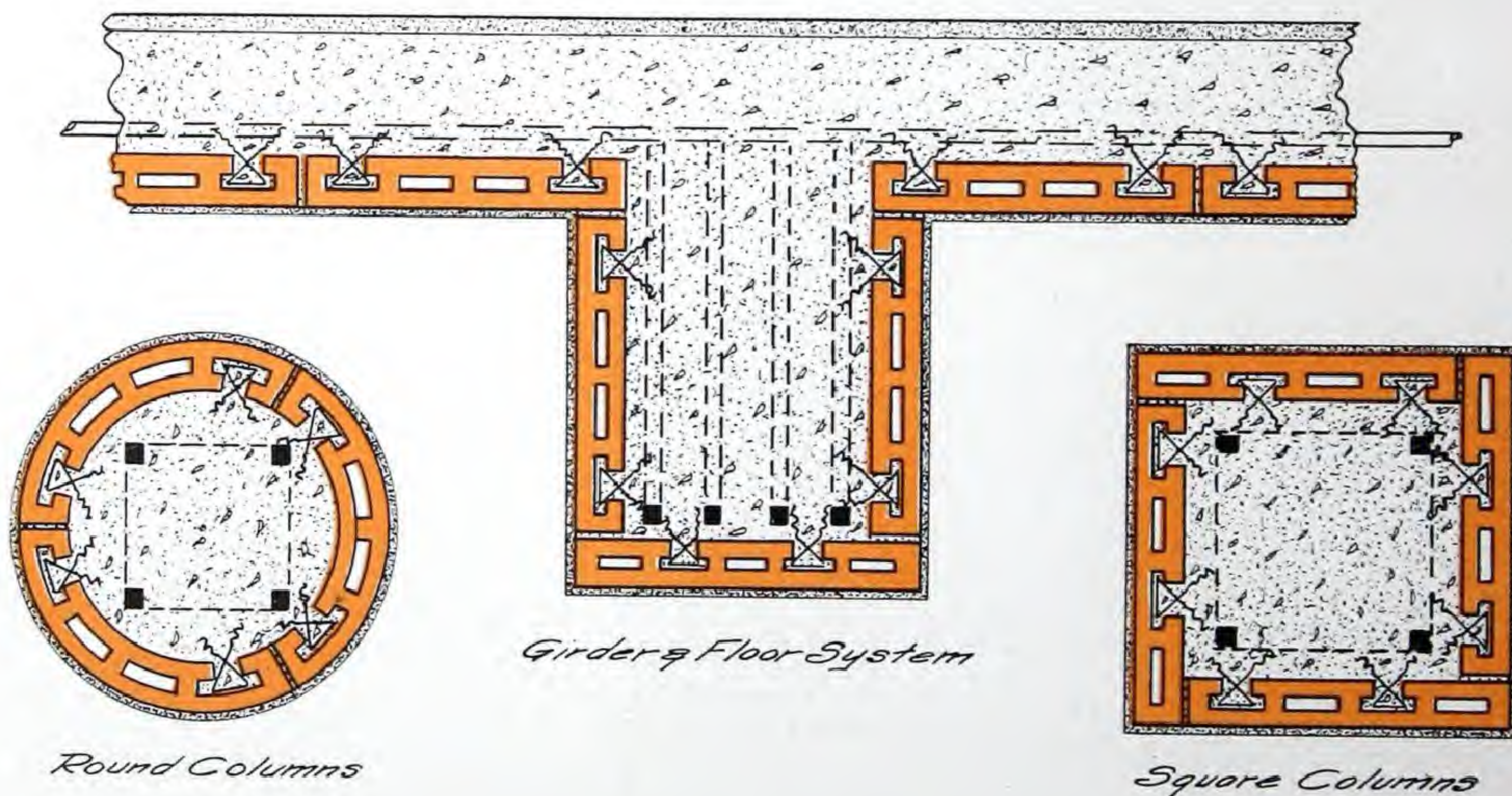


## *SUSPENDED CEILING*



*Special Book Tile for Fire Proofing "T" Irons.*

## *FIRE PROOF CONCRETE CONSTRUCTION*

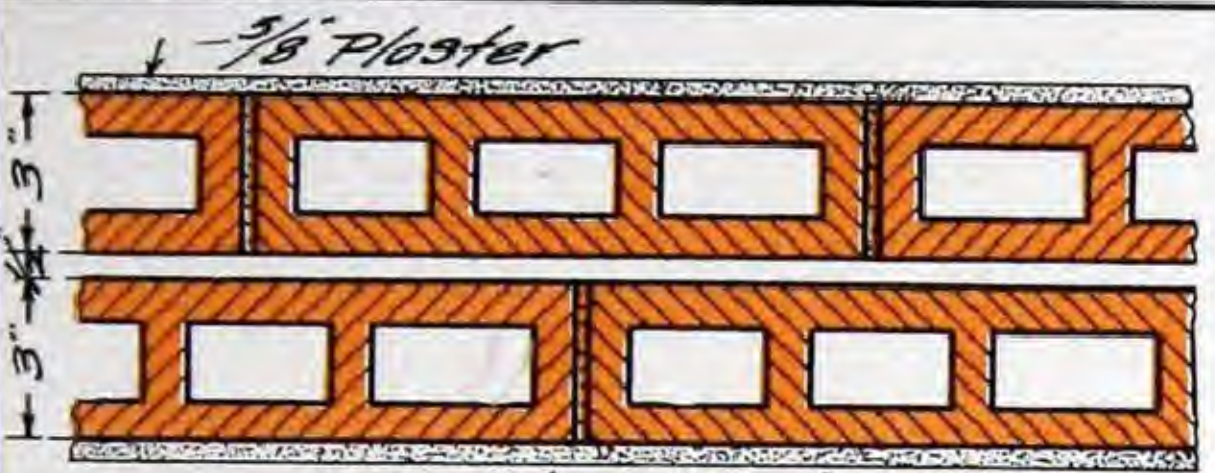
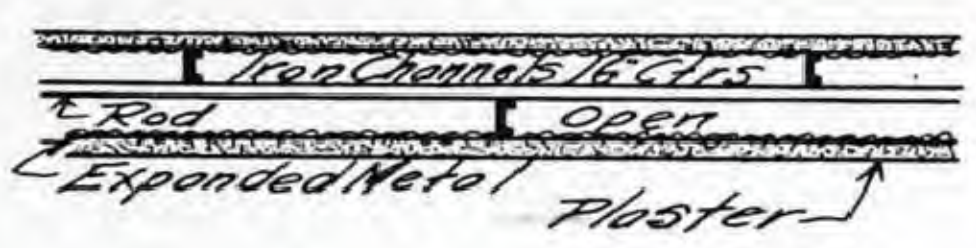
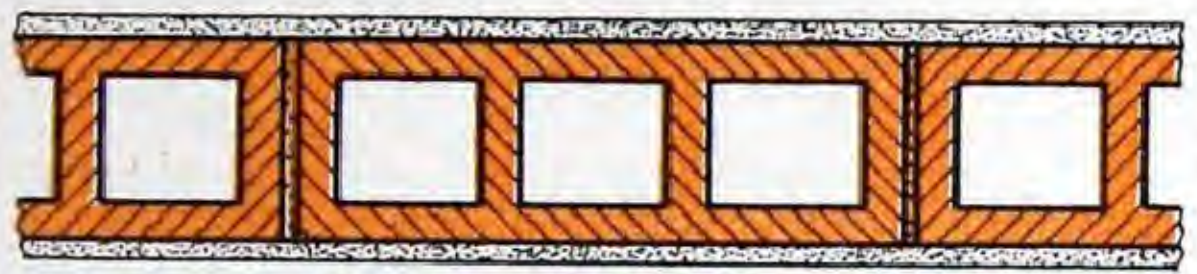

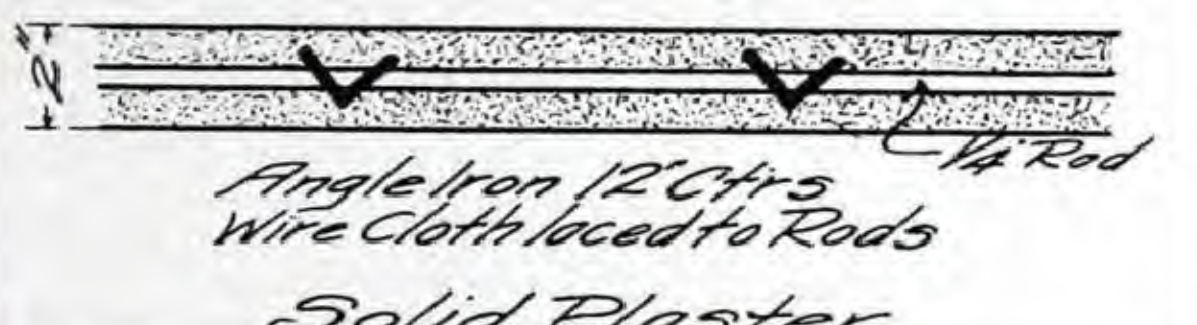
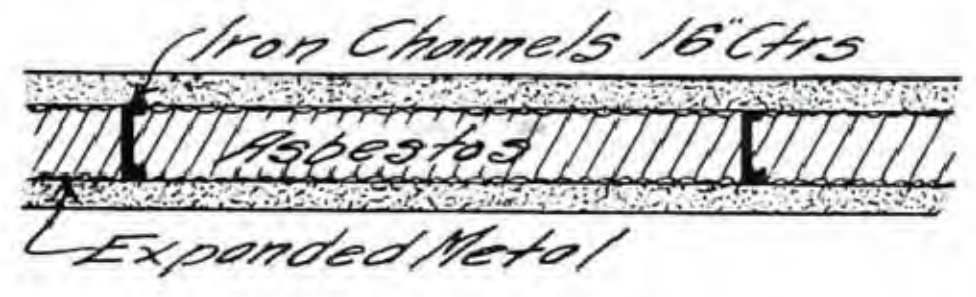
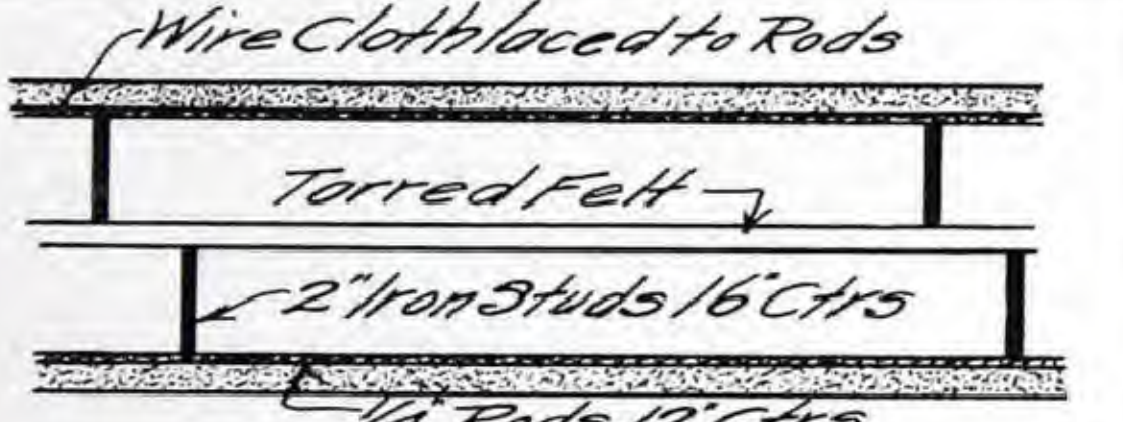
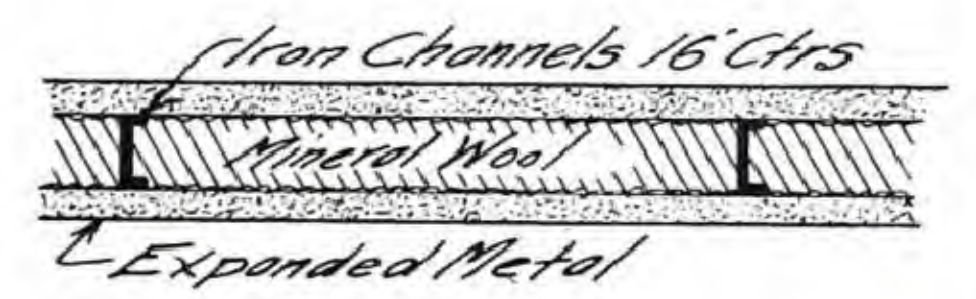




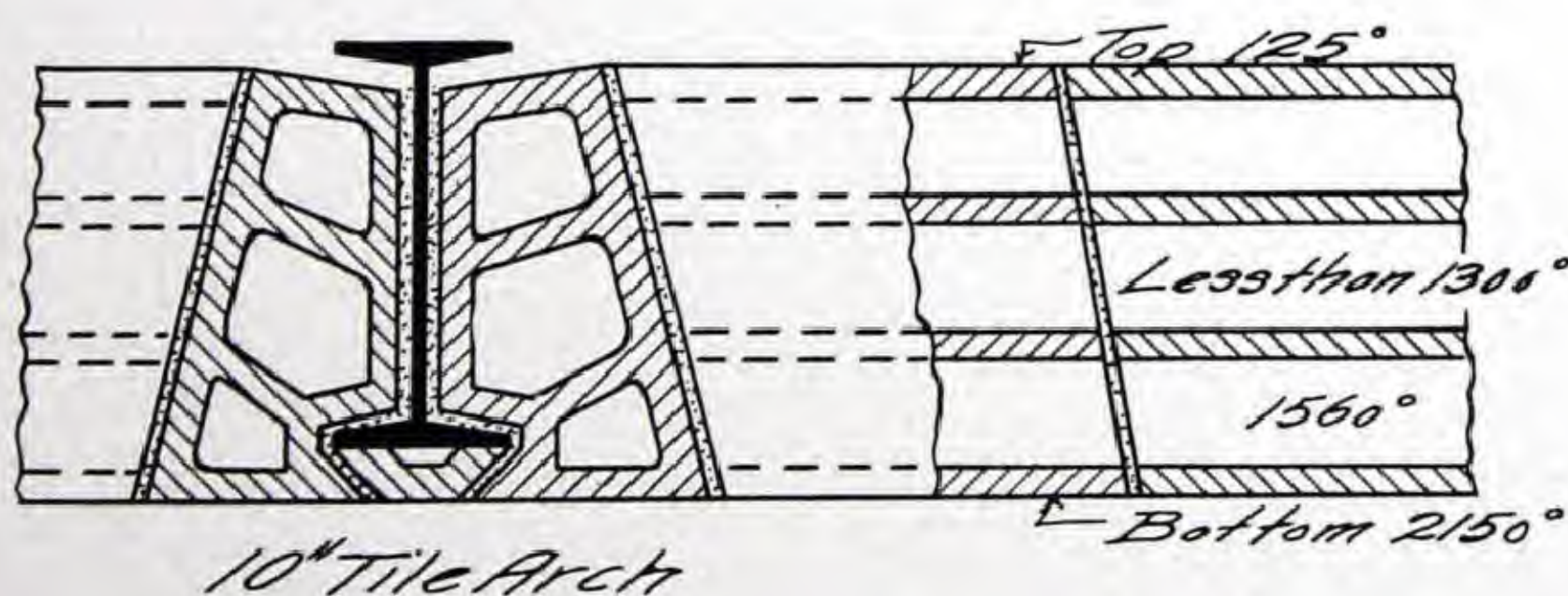
# DOMINION FIRE PROOFING COMPANY, Limited

## SOUND PROOF TEST

Made at Steinway Hall, Chicago, Ill. Jan. 4-1895  
Under supervision of D.H. Perkins, Arch't.

Rank in Sound Proof Efficiency				
 Double 3" Tile	1st	 Iron Channels 16 Ctrs Rod Open Expanded Metal Plaster	5th	Same
 4" Tile	2nd	 1/4" Rods 12 Ctrs 2" Iron Studs Wire Cloth laced to Rod	5th	
 Angle Iron 12 Ctrs Wire Cloth laced to Rods Solid Plaster	3rd	 Iron Channels 16 Ctrs Asbestos Expanded Metal	5th	
 Wire Cloth laced to Rods Tarred Felt 2" Iron Studs 16 Ctrs 1/4" Rods 12 Ctrs	4th	 Iron Channels 16 Ctrs Mineral Wool Expanded Metal	5th	

## TEMPERATURE TEST



10" Tile Arch

Made by  
Henry Maurer & Son  
New York  
April 15th 1898



Hand-drawn typical floor framing plan for a rectangular building. The plan shows a grid of joists and beams. Key dimensions include a total width of 67'6" and a total depth of 103'6". The plan includes a staircase area on the left, a central corridor, and various rooms. Structural details include 15I60 beams, 12I3 1/2 joists, 8I18 beams, and 3/4 tie rods. A note indicates "TYPICAL FLOOR FRAMING PLAN".



# Specifications for Fire Proofing

## EXAMINATION OF DRAWINGS

The Contractor shall examine the general and steel drawings for the entire building, shall make such special shapes, and shall furnish such materials as are necessary to thoroughly and practically fireproof all structural steel throughout the building, excepting where other material is shown or specified.

## SCAFFOLDING AND CENTERS

The Contractor shall provide all scaffolding and centers for the proper setting of his material, and shall have sufficient centers on the job so that arches will have proper time to set before the centers are removed.

## MATERIAL

All material for Fire Proofing throughout the building to be equal to that manufactured by the Dominion Fire Proofing Company Limited.

Mortar for all fireproof partitions, furring, floors, column and girder covering, etc., is to be lime mortar, composed of best quality, fresh lime, well slaked, and clean, sharp sand in proportions to make an adhesive mortar, all strongly tempered with approved Portland cement just before using.

## SPECIAL SHAPES

The Contractor shall furnish all necessary special shapes for the proper fitting to steel work, including fireproofing for beams and girders projecting below the ceiling line.

## GIRDERS

All girders and beams which project below the ceiling, or in wellholes, shall be independently fireproofed. This fireproofing, as far as possible, shall consist of shoe tiles on exposed flanges of beams, with the necessary hollow tile fillers. Fireproofing shall be put on so that all joints will be flush and spaces filled up without any afterpointing.

## FLOOR AND ROOF ARCHES

The Contractor shall furnish flat arches from the first floor to the roof, inclusive. Floor and roof arches shall be . . . . . inches in all cases and shall be constructed as per detail. All arches shall be strong enough to safely support . . . . . pounds per square foot, uniformly distributed.

In laying tile arches, key tiles shall be forced into place, in such a manner that there will be uniform bearing over the entire surfaces of both sides of the tile.



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## DOMINION FIRE PROOFING COMPANY, *Limited*

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### LINTELS

The Contractor shall furnish and set all fireproofing around lintels, as indicated and required.

### PARTITIONS

All partitions (excepting such as are indicated to be laid with brick) shall be furnished by the Contractor.

Unless otherwise shown, the following sizes are to govern:

3" Tile where Story height does not exceed 12 feet.

Partitions 12 feet and up to 14 feet in height to be 4 inches.

Above 14 feet 6" Tile is to be used.

Also all Corriders, Continuous Shaft Enclosures and all Basement and First Story Partitions to be built of 4" Tile.

Partitions shall start in all cases from the floor arch and extend to soffit of arches in floor above.

All partitions shall be laid up with solid joints and special care shall be taken in framing around openings.

### FURRING TILE

The Contractor shall construct recesses, pilasters and other features wherever shown on the plans, also enclosures for plumbing pipes, stacks, electric wires, etc., wherever called for on drawings.

In general, the Contractor shall use 3" tile for this work.

Exterior walls throughout the building are to be furred with 2 " split tile furring.

### COLUMNS

Interior columns throughout, also portion of exterior columns that project inside of masonry walls, are to be encased with single thickness of 3 inch hollow tile, same to be built true and plumb with square corners.

### DETAILS

The Contractor shall furnish large scale details for all special shapes, lintel and girder covering, and general type of arches, which shall be submitted to the Architects, in duplicate, for their approval. A duplicate of the approved sheet shall be left in the office of the Architects.

### RUBBISH

The Contractor shall remove all his rubbish as fast as it accumulates, and leave the premises, at completion, in perfect condition, so far as his work is concerned.

### PATCHING

Any patching of fireproofing that has been damaged by other trades, is to be paid for as an extra, on written orders, approved by the Architect.



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DOMINION FIRE PROOFING COMPANY, *Limited*

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*Exterior Walls, throughout C.P.R. Shops, Calgary, Alta., constructed of  
Hollow Terra Cotta Tile  
Note Plaster applied directly on same.*





## Combination Tile and Concrete

The so called "Combination System," that is, Reinforced Concrete Joists with Hollow Tile Filler, has proven an economical floor construction where a complete Steel Frame Structure is out of the question. Occasionally it has happened that the supply of Steel from the Mills has been inadequate to supply the immediate demands of Western Canada with its rapid development, and a Fire Proof Floor System is necessary that can be installed with a minimum amount of Iron supports. In this case we recommend a "Combination System" Floor as illustrated on Pages 45 to 48 and designed according to Tables given for various widths of Span.

This type of Construction is particularly adapted to Apartment Houses, Residence, and Public Building Construction, where the distance between supporting walls is not prohibitive. Also the use of Hollow Tile Blocks for Exterior and Interior carrying walls is economically practical.

Apartment Buildings have been erected to a height of four complete Stories, with our Hollow Tile Blocks used as carrying walls, which is good evidence of quality and strength of our material. No reinforcement whatever was used in the walls. Combination Floors were installed throughout these Buildings, and the fact that Hollow Tile Blocks were used in Floors and Walls, made the Dead Loads lighter than would have been the case with any other Fire Proof Material, and as a result appreciably reduced the total weight on the Foundations.

On Page No. 48 we reproduce an actual Photograph taken in the Basement of the Apartment Building referred to, showing clearly the underside of "Combination System" Floor, also the Exterior and Interior Tile Walls with Floors bearing directly on same.

This Construction especially commends itself to Residence Construction, being Fire, Sound and Vermin Proof. Furthermore, with Hollow Tile used for Outside walls, the temperature within can be maintained more uniform the year round, and correspondingly cooler in Summer and Warmer in Winter.

Our Construction Department is at your service for any recommendations or Estimates regarding above mentioned Fire Proofing methods.

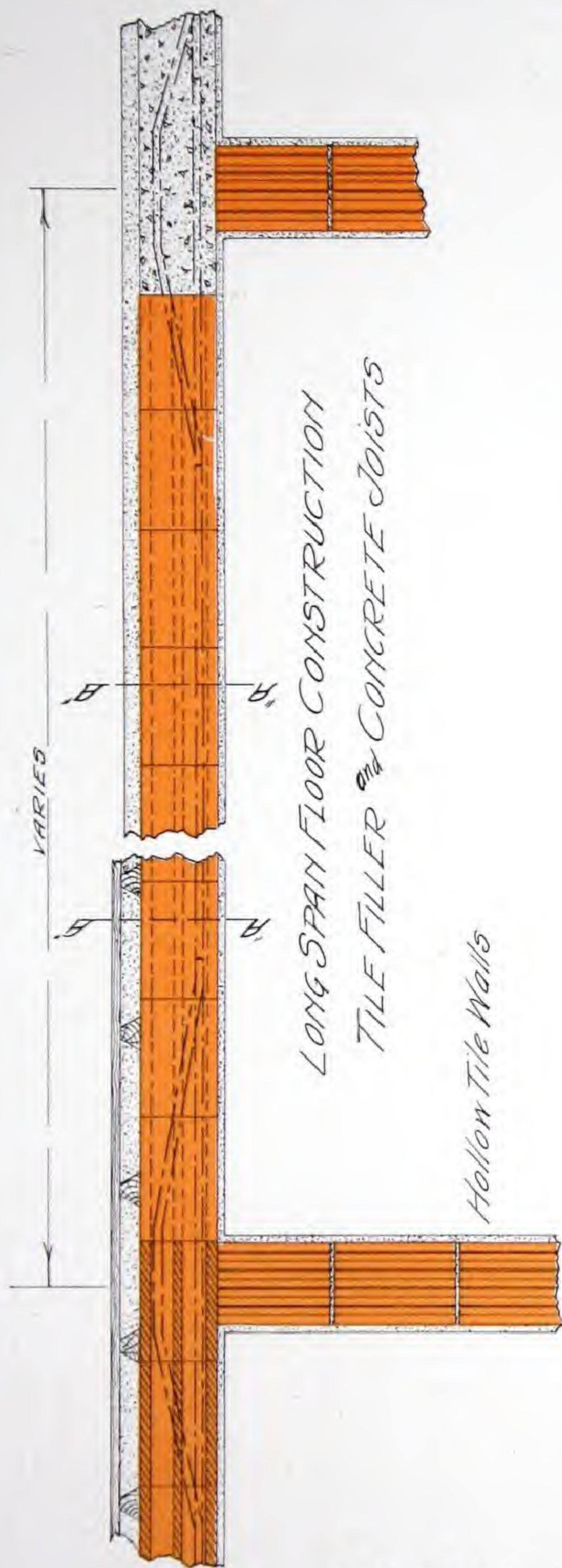
TABLE OF SAFE LOADS FOR COMBINATION SYSTEM FLOOR.

Safety Factor—4

CONCRETE MIX: 1 Part Portland Cement; 2 Parts Sand; 4 Parts Gravel or Stone.

Width of Span	12 inch Tile	10 inch Tile	9 inch Tile	8 inch Tile	6 inch Tile	5 inch Tile	4 inch Tile	Width of Span	12 inch Tile	10 inch Tile	9 inch Tile	8 inch Tile	6 inch Tile	5 inch Tile	4 inch Tile
	1" Rod	1" Rod	1" Rod	¾" Rod	¾" Rod	¾" Rod	¾" Rod		1" Rod	1" Rod	1" Rod	¾" Rod	¾" Rod	¾" Rod	¾" Rod
4' 0"	3106	2503	2107	1786	896	630	386	13' 0"	302	234	191	160	68	42	1
5' 0"	2560	1964	1630	1390	693	482	297	14' 0"	243	192	157	131	53	31	12
6' 0"	1742	1356	1116	956	482	324	201	15' 0"	209	161	129	108	39	21	..
7' 0"	1251	987	800	691	338	236	142	16' 0"	172	133	108	88	27	16	..
8' 0"	952	732	613	512	251	172	100	17' 0"	151	110	87	71	19	..	..
9' 0"	724	564	468	401	192	126	75	18' 0"	128	92	71	57	14	..	..
10' 0"	560	438	366	310	147	95	56	19' 0"	106	76	55	45	..	..	..
11' 0"	458	352	288	224	116	73	38	20' 0"	88	62	46	29	..	..	..
12' 0"	361	286	228	197	91	55	27								





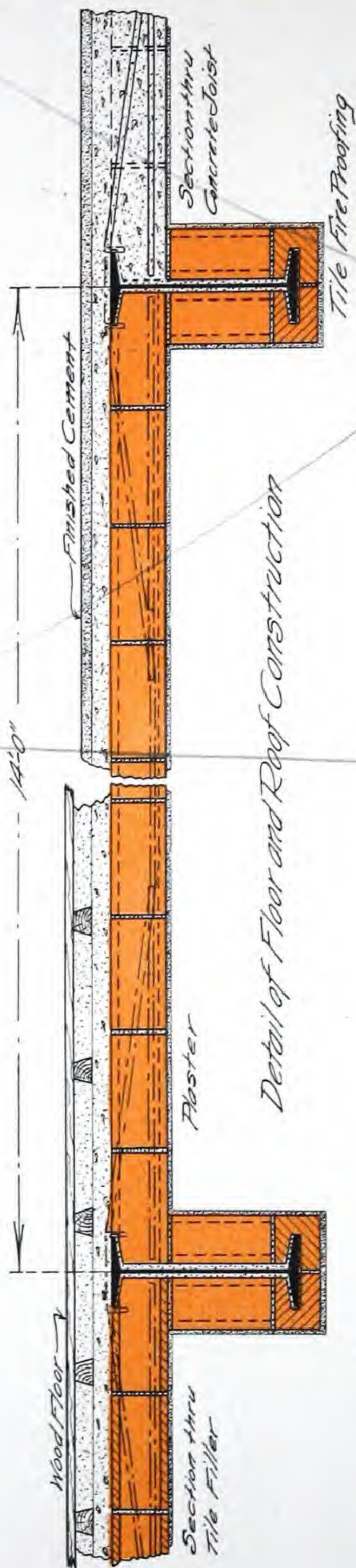
For Load Table see page 44

DETAILS SHOWING  
COMBINATION FLOOR SYSTEM  
CARRIED DIRECTLY ON INTERIOR  
HOLLOW TILE PARTITIONS





# DOMINION FIRE PROOFING COMPANY, Limited



*Detail of Floor and Roof Construction*



## FIRE PROOF CONSTRUCTION DETAILS

*As Used In*

*Canada Life Assurance Buildings*

*at*  
*Calgary, Alta. - and - Regina, Sask.*

*Brown and Wallace, Architects.*

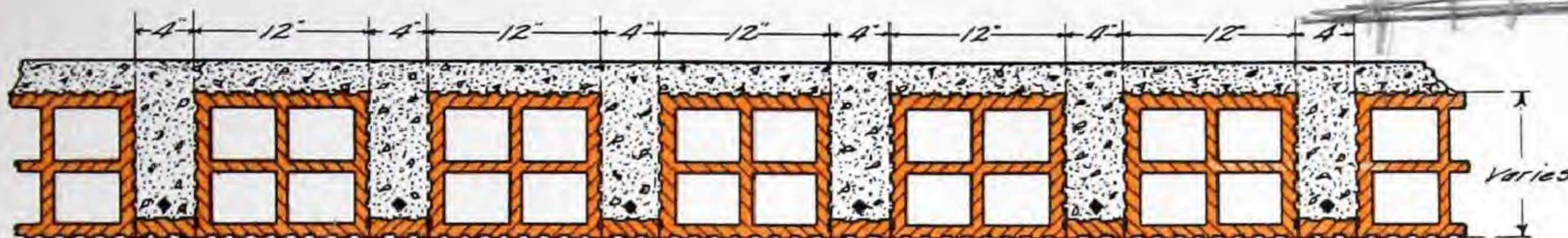


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**DOMINION FIRE PROOFING COMPANY, Limited**

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*LONG SPAN FLOOR SYSTEM*



Combination  
**Tile and Concrete Joists**

With Full Tile Surface to Receive Plaster and 2 inch Concrete Fill

Concrete Mix:—1 Part Portland Cement

3 Parts Sand

5 Parts Gravel or Stone

**TABLE SAFE LIVE LOADS IN POUNDS PER SQUARE FOOT.**

Span in Feet	12 inch Tile 1 inch Rod	10 inch Tile 1 inch Rod	9 inch Tile 1 inch Rod	8 inch Tile $\frac{7}{8}$ inch Rod	6 inch Tile $\frac{3}{4}$ inch Rod	5 inch Tile $\frac{3}{4}$ inch Rod	4 inch Tile $\frac{5}{8}$ inch Rod
4	....	....	....	....	....	1372	963
5	....	....	....	....	1542	1075	762
6	....	....	....	1826	1067	724	516
7	....	....	1526	1401	780	528	372
8	....	1382	1187	1076	566	396	267
9	....	1106	930	824	415	298	205
10	1180	874	734	662	326	229	153
11	972	721	592	527	242	178	121
12	764	582	474	436	216	145	90
13	641	491	392	352	172	113	69
14	548	405	327	284	141	92	62
15	464	338	274	221	114	75	...
16	398	287	226	197	92	...	...
17	341	245	196	168	78	...	...
18	292	206	161	133	...	...	...
19	251	162	134	117	...	...	...
20	206	134	119	101	...	...	...
21	156	121	97	...	...	...	...
22	112	108	...	...	...	...	...

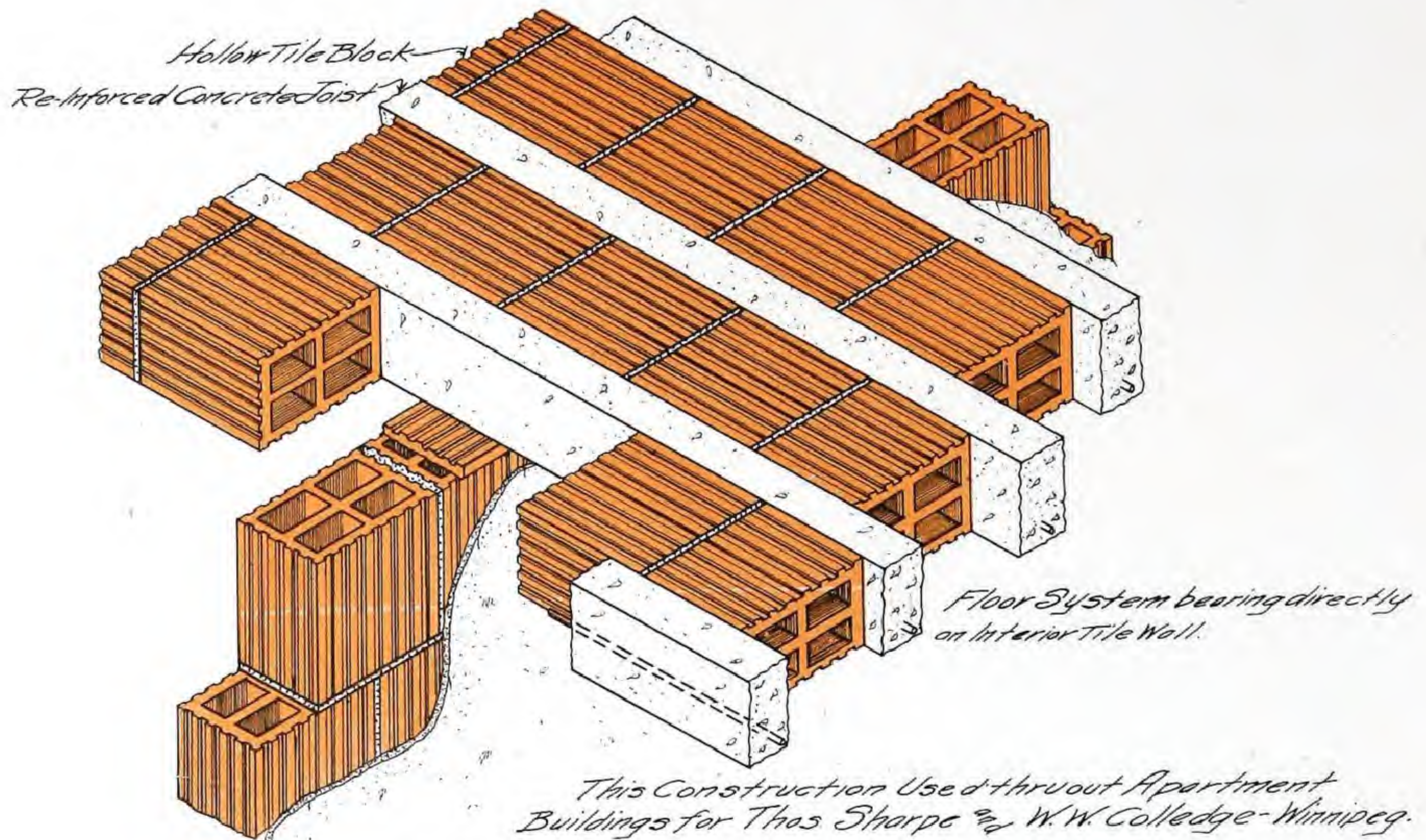


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DOMINION FIRE PROOFING COMPANY, *Limited*

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*LONG SPAN CONSTRUCTION*



*Photograph of Combination System Floor, and Hollow Tile carrying Wall,  
Apartment Building, Hugo Street, Winnipeg*





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